

BASIC PSYCHOLOGICAL NEEDS SATISFACTION AND IDENTITY
STATUSES ACROSS TWO SOCIAL CONTEXTS IN EMERGING
ADULthood

A THESIS SUBMITTED TO
THE GRADUATE SCHOOL OF SOCIAL SCIENCES
OF
OZYEGIN UNIVERSITY

BY

PINAR ERÇELİK

IN PARTIAL FULFILLMENT OF THE REQUIREMENTS
FOR
THE DEGREE OF MASTER OF ARTS
IN
THE DEPARTMENT OF PSYCHOLOGY

AUGUST 2016

Copyright © 2016 by Pınar Erçelik

Approved by:

Assistant Prof. Ayfer Dost-Gözkân
(Thesis Advisor)

Associate Prof. Asiye Kumru

Assistant Prof. Arzu Karakulak

August 2016



To my mother...

ABSTRACT

The present study aimed to investigate the relationship between perceived psychological needs satisfaction and identity statuses in emerging adults across two social contexts i.e., parents and best friend. Data were collected as online self-report questionnaires from emerging adults aged between 18 and 26. A total of 288 university students completed questionnaires related to identity statuses and basic psychological needs satisfaction with mother, father and best friend. The results showed that needs satisfaction with the peer was significantly greater than needs satisfaction with parents. In addition, there was a significant effect of year of university education on identity diffusion such that identity diffusion was more prevalent in first year students than students with at least five year university education. Further, multiple regression analyses indicated that needs satisfaction with best friend predicted all the identity statuses. However, needs satisfaction from mother predicted identity moratorium together with best friend and needs satisfaction from father predicted identity foreclosure jointly with best friend. The findings were discussed in the light of previous studies and future directions were provided.

Keywords: emerging adulthood, basic psychological needs satisfaction, identity statuses

ÖZET

Bu çalışma, temel psikolojik ihtiyaçlar ile kimlik statüleri arasındaki ilişkiyi beliren yetişkinlik döneminde aile ve arkadaş ortamı olmak üzere iki ayrı sosyal bağlamda incelemeyi amaçlamıştır. Veriler 18 ve 26 yaş aralığındaki beliren yetişkinlerden öz değerlendirme anketlerinin online olarak doldurulması şeklinde toplanmıştır. Toplam 288 üniversite öğrencisi kimlik statüleri ve temel psikolojik ihtiyaçların anne, baba, ve en yakın arkadaş ortamında karşılanması ile ilgili ölçekleri doldurulmuştur. Sonuçlar temel psikolojik ihtiyaçların arkadaş ortamında aile ortamından daha fazla karşılandığını göstermiştir. Bunun yanı sıra üniversite eğitim yılının dağınık kimlik üzerinde etkili olduğu bulunmuştur. Dağınık kimliğin üniversitenin ilk yılındaki öğrencilerde en az beş yıldır üniversite eğitimi alan kişilerden daha fazla olduğunu bulunmuştur. Sonuçlar ayrıca temel psikolojik ihtiyaçların en yakın arkadaş tarafından karşılanmasının tüm kimlik statülerini yordadığını göstermiştir ancak temel psikolojik ihtiyaçların anne tarafından karşılanmasının yalnızca askıya alınmış kimliği, baba tarafından karşılanması ise ipotekli kimliği arkadaş ile beraber yordadığı bulunmuştur. Bulgular önceki çalışmalar ışığında tartışılmıştır ve ileriki çalışmalara önerilerde bulunulmuştur.

Anahtar Kelimeler: beliren yetişkinlik, temel psikolojik ihtiyaçların karşılanması, kimlik statüleri

ACKNOWLEDGMENTS

First and foremost, I would like to thank my thesis advisor Assistant Prof. Ayfer Dost-Gözkân and my thesis committee members Assoc. Prof. Asiye Kumru and Assistant Prof. Arzu Karakulak for their participation in my thesis committee and contributions to my thesis. I also would like to thank Assistant Prof. Justin Marcus for his help and support. He was very flexible and always available for help which I cannot appreciate more.

Second, I owe a huge gratitude to my beloved friend Canan Tuğberk for doing all the sane and insane things with me and for her great help with my data collection. I also thank my friend Hazal for her help in technological issues.

Further, I thank everyone who participated in my study. They basically made this thesis possible.

I also would like to thank Psychology Department of Ozyegin University for deeming me worthy for a scholarship and assistantship during my graduate education. It was an honor for me to feel as part of the faculty and an opportunity to develop my research and teaching skills.

Last but not least, I thank my dear family for their love and support in every aspect of my life and for believing in me to become a successful and reliable person.

Pınar Erçelik

TABLE OF CONTENTS

DEDICATION.....	iii
ABSTRACT	iv
ÖZET	v
ACKNOWLEDGMENTS	vi
TABLE OF CONTENTS	vii
LIST OF TABLES	xi
1. CHAPTER I	1
INTRODUCTION.....	1
2. CHAPTER 2.....	4
LITERATURE REVIEW	4
2.1. Theoretical Framework and Empirical Evidence.....	4
2.1.1. Self-Determination Theory.....	4
2.1.2. Basic Psychological Needs.....	6
2.1.2.1. Basic Psychological Needs in Family Context.....	11
2.1.2.2. Basic Psychological Needs in Peer Context.....	15
2.1.3. Identity Development.....	19
2.1.3.1. Identity Formation.....	20
2.1.3.2. The Importance of Peers in Identity Development.....	24
2.1.4. Basic Needs and Identity Statuses.....	25
2.2. The Present Study.....	28
3. CHAPTER 3.....	30
METHOD.....	30
3.1. Participants	30
3.2. Procedures	31
3.3. Measures.....	31
3.3.1. <i>Perceived Need Satisfaction Scale</i>	31
3.3.2. <i>Extended Version of the Objective Measure of Ego Identity Status</i> (<i>EOMEIS</i>).....	33

3.3.3. <i>Demographics Questionnaire</i>	34
3.4. Data Preparation.....	34
3.5. Preliminary Analyses.....	35
4. CHAPTER 4.....	37
RESULTS.....	37
4.1. Descriptive Analyses.....	37
4.1.1. Bivariate Correlations among Demographics and Needs Satisfaction Variables.....	37
4.1.2. Bivariate Correlations among Demographics and Identity Statuses.....	38
4.1.3. Bivariate Correlations among Needs Satisfaction Variables and Identity Statuses.....	39
4.2. Effect of Relationship Context on Basic Needs Satisfaction.....	41
4.3. Effect of Year of University Education on Identity Statuses.....	41
4.4. Analyses of Multiple Regression.....	42
4.4.1. Predicting Identity Achievement.....	42
4.4.2. Predicting Identity Moratorium.....	44
4.4.3. Predicting Identity Foreclosure.....	45
4.4.4. Predicting Identity Diffusion.....	46
CHAPTER 5.....	49
DISCUSSION.....	49
5.1. The Aim of the Present Study and the Summary of the Findings.....	49
5.2. Demographic Variables as Predictor of Identity Statuses.....	58
5.3. Contributions.....	59
5.4. Limitations and Future Directions.....	59
APPENDICES.....	61
APPENDIX A.....	61
APPENDIX B.....	62
APPENDIX C.....	67
REFERENCES.....	68

LIST OF TABLES

Table 3.1	Characteristics of the Sample.....	30
Table 4.1	Descriptive Statistics of Study Variables.....	37
Table 4.1.1	Bivariate Correlations among Demographics and Needs Satisfaction Variables.....	38
Table 4.1.2	Bivariate Correlations among Demographics and Identity Statuses.....	39
Table 4.1.3	Bivariate Correlations among Needs Satisfaction Variables and Identity Statuses.....	40
Table 4.4.1	Backward Stepwise Regression Analyses for Identity Achievement....	43
Table 4.4.2	Backward Stepwise Regression Analyses for Identity Moratorium.....	44
Table 4.4.3	Backward Stepwise Regression Analyses for Identity Foreclosure.....	46
Table 4.4.4	Backward Stepwise Regression Analyses for Identity Diffusion.....	47

CHAPTER 1

INTRODUCTION

Identity development is a life-long process because human beings are exposed to biological changes over time and they interact with the ever changing environment on a daily basis. Therefore, one's identity is always to develop and transform throughout life. Identity development has been considered to be a special concern of adolescence. Erikson (1956) referred to adolescence as the time to transit from childhood to adulthood and argued that individuals in this period explore various identities in attempts to commit to one or more of those. However, it is relatively recently argued that there is a delay in the transition to adulthood due to increasing possibilities in adult roles following industrialization in societies (Arnett, 2000; Cote, 2006). The way young individuals experience developmental tasks and create their identity now is more unfolded than the youth of the past when social roles, professions, marriages and social environments were more predestined or determined in a swifter fashion (Ryan & Deci, 2003). Arnett (2000) theorized a new developmental period named *emerging adulthood* which he defines as the period between adolescence and adulthood when actual exploration for different selves occur (Arnett, 2000). According to Arnett (2000), identities are hardly achieved in high school but with the exploration in late teens and twenties. Majority of the youth surpass this challenging period and form coherent identities (Collins & Laursen, 1992) but not all of them experience identity development in the same manner. Some individuals acquire certain roles that they are exposed at home right away while some explore outer sources before they decide on their identities. Along with

these different identity practices, there are also people who are carefree to engage in identity related activities (Marcia, 1966).

Identity statuses with higher exploration (i.e., moratorium and achievement) are recognized as “more mature” identities as opposed to identity statuses with low exploration (i.e., foreclosure and diffusion) (Kroger, 2006). They are associated with positive outcomes such as better adjustment, a sense of autonomy, a proactive problem solving approach, self-efficacy and less self-monitoring (e.g. Adam, 1985; Berzonsky & Adams, 1999; Kumru & Thompson, 2003; Luyckx, Vansteenkiste, Goossens, & Duriez, 2009).

Self-determination theory (SDT: Deci & Ryan, 2000; Ryan & Deci, 2000) claims that fulfillment of basic psychological needs - autonomy, competence, and relatedness- provides a basis for intrinsic motivation and internalization that contribute to identity development such that individuals with satisfied needs engage in activities which facilitates identity (La Guardia, 2009). Basic psychological needs satisfaction is a notion that stems from SDT (Deci & Ryan, 2000) which postulates that humans are inclined to satisfy needs of autonomy, competence and relatedness with their significant others to achieve their fullest development.

According to SDT, basic psychological needs can only be satisfied through the interaction with social environment. Studies showed that satisfaction of basic needs in family environment is a significant indicator of happiness, academic adjustment (lower dropouts), and low levels of disruptive behaviors (oppositional and impulsive) (Gagne, 2003; Sheldon & Niemiec, 2006; Şimşek & Demir, 2014).

There are also studies indicating different results from the examination of basic psychological needs satisfaction in different social contexts. For example, La Guardia, Ryan, Couchman, and Deci (2000) examined university students' satisfaction of basic needs in multiple domains (i.e., mother, father, best friend, and romantic partner). They found that individuals had different levels of need satisfaction with different attachment figures which resulted in significant differences in felt security and perception of self and other. Students reported the highest needs satisfaction for best friend resulting in the highest attachment security, the most positive model of self and other in the relationship with best friend. Another study on teenagers revealed that friends and romantic relationships were two domains individuals felt greatest needs satisfaction in (Milyavskaya & Koestner, 2011; Milyavskaya et al., 2009). These two studies lead to the assumption that the level of perceived need satisfaction changes among different relationship contexts and they predict the outcomes in different extents.

Previous studies showed positive links between basic psychological needs and identity formation (e.g., Beyers & Luyckx, 2016; Luyckx et al., 2009). However, these studies looked at the relationship in one domain (i.e., only in parental context or with friends) or within general social environment (Johnston & Finney, 2010; Sheldon & Niemiec, 2006). Relative contributions of needs satisfaction with parents and with friends were not investigated in the identity literature. The present study aims to explore the relative effects of needs satisfaction in parental context and in peer context on emerging adults' identity statuses.

CHAPTER 2

LITERATURE REVIEW

2.1. Theoretical Framework and Empirical Evidence

This section presents the theoretical perspective and empirical evidence for the proposed relationship between perceived basic psychological needs satisfaction and identity statuses in family and best friend contexts.

2.1.1. Self-Determination Theory (SDT)

The present paper examines the relationship between basic psychological needs satisfaction and identity development in emerging adulthood from the view point of self-determination theory. SDT (Deci & Ryan, 2000; Ryan & Deci, 2000) is a theory explaining human's motivation and personality development. The focal point of SDT is the level of self-motivation and self-government of human behavior. According to SDT, humans have a motive for growth and a tendency to integrate their actions with themselves. That is, people are capable of regulating their behaviors in terms of their interests. Ryan and Deci (2000) suggest that self-determined people have high self-awareness for their personal interests, values and goals and they govern their actions accordingly.

SDT suggests that needs that serve as basis for goal selection and goal pursuit has to be studied to fully understand psychological development and well-being as well as goal directed behavior. Two kinds of motivation for human behavior were proposed by SDT: intrinsic and extrinsic motivation. Behaviors that are intrinsically motivated are characterized by those which people are interested in and engaged in only because of the enjoyment it gives rather than having a reward

for doing the action or punishment for not doing it. In contrast, external motivation refers to behaviors that are directed by outward benefits (e.g., getting into a job, promotion, high grades). In the absence of reward or punishment, one is not likely to continue his/her pursuit in the particular behavior. An intrinsically motivated person acts according to what interests him/her or in the way he/she enjoys and this determines behaviors as autonomous but if one is extrinsically motivated, he/she would feel controlled and compelled in his/her actions (Deci & Ryan, 2000).

Behaviors that are extrinsically motivated in nature can be turned into owned and valued behaviors with the process of internalization. Introjection of extrinsic behaviors is illustrated as people acting to escape embarrassment or guilt or to increase respect and make others proud. This type of motivation means that behaviors are engaged with respect to other's opinions. If behaviors are identified, people give importance to them and own them. Finally, if behaviors are integrated, people match them with their own values and are willing to master them without any conflicts. The extent of internalization in externally motivated behaviors increases the level of autonomy in actions (Ryan, Connell, & Deci, 1985). Activities that are intrinsically motivated or formed with identified regulations can satisfy basic needs which cannot be satisfied by external motivation or introjection. When people's basic psychological needs are gratified, they are more likely to move towards intrinsic goals for identity (Soenens & Vansteenkiste, 2011). Kasser and Ryan (1996) stated that individuals with satisfied basic needs give more importance to intrinsic goals (i.e., connectedness, being helpful, being healthy and self-approval) than extrinsic goals (i.e., financial accomplishments, good looks and

popularity), which predicts higher well-being. In addition, a study (Kasser, Ryan, Zax, & Sameroff, 1995) with a university sample revealed that inadequate needs support from mothers lead to more extrinsic ambitions such as financial success rather than intrinsic intents.

2.1.2 Basic Psychological Needs

It is suggested by SDT that people have inborn motives to satisfy their basic psychological needs (Ryan & Deci, 2000). These psychological needs are identified as autonomy, competence and relatedness. Firstly, the need for autonomy is described as people's need to know that they decide on their own behaviors rather than others' push or control over their actions (Deci & Ryan, 2000). When the need for autonomy is fulfilled, the individual feels that their actions are in their control and not happening against their interests and will (Vansteenkiste, Niemiec, & Soenens, 2010). Secondly, people's need to feel masterful about coping with their environment is called the need for competence (Harter, 1978; Ryan & Deci, 2000). Adequate challenge and constructive feedback facilitate the satisfaction of competence (Koestner, Ryan, Bernieri, & Holt, 1984; Ryan & Deci, 2000) that provides the feeling of being capable in facing life's difficulties (Ryan & Deci, 2000; White, 1963). Competence satisfaction is only the result of doing activities to expand personal capability but not to gain rewards or other external advantages (Ryan & Deci, 2000; White, 1959). Lastly, the need for relatedness refers to people's need for establishing and maintaining satisfactory, supportive and stable social relationships (Deci, Ryan, & Williams, 1996; Grolnick, Deci, & Ryan, 1997; Ryan & Deci, 2000). Fulfillment of the need for relatedness enables individuals to

feel connected to their loved ones and feel belonged and cared for (Baumeister & Leary, 1995; Ryan & Deci, 2002).

Fulfillment of these three needs is necessary for healthy functioning and growth including identity development whereas inadequate satisfaction of any of the basic needs hinders thriving. In other words, every single of the three basic psychological needs is significant for ideal growth and integration in human functioning. Hence neglect in any of them will lead to adverse outcomes (e.g. binge eating, aggressive symptoms and self-criticism) (Soenens & Vansteenkiste, 2010; Vansteenkiste & Ryan, 2013). Ryan and Deci (2000) maintain that healthy functioning is only to occur if three basic psychological needs are all gratified. Said differently, needs of autonomy, competence and relatedness are distinct requirements of human thriving (Ryan, 1995) and neglecting one need or satisfying one or two needs is not sufficient to achieve optimal development; it rather impairs positive growth (Deci & Ryan, 2000; Ryan, 1995). In line with this tenet, the vast majority of research usually viewed three basic needs as a unifying concept and examined the overall impact of need gratification (e.g. Hadden, Overup, & Knee, 2014; La Guardia et al., 2000, Study 1 and 2; Miner, Dowson, & Malone, 2014; Philippe, Koestner, Beaulieu-Pelletier, & Lecours, 2011, Vansteenkiste et al., 2007; Wei et al., 2005).

SDT asserts that all people has inborn psychological needs in different levels. However, SDT is not concerned with the level of needs (e.g. how much a person needs to feel competent than others) but mainly focuses on the extent of gratification of basic psychological needs in various domains and the results due to

alternate levels of gratification (Deci & Ryan, 2000). Moreover, the balance of needs gratification levels among the three basic needs was also found significant for psychological well-being such that individuals who perceive equivalent satisfaction of autonomy, competence and relatedness showed greater positive affect as to others who felt different levels of need satisfaction for all three kinds of needs (Sheldon & Niemiec, 2006).

Satisfaction of these psychological needs is also critical for best functioning of humans in diverse domains of social and personal development. A number of studies examined basic needs satisfaction in specific domains such as with parents (Miklikowska, Duriez, Soenens, 2011), close friends (Deci, La Guardia, Moller, Scheiner, & Ryan, 2006; Demir & Davidson, 2013; Hadden, Overup, & Knee, 2014, Study 1), romantic partners (Hadden et al., 2014, Study 2) and teachers (Filak & Sheldon, 2003), as well as in athletics (Gagne, Ryan, & Bargmann, 2003), in work place (Deci et al., 2001; Vansteenskiste, Neyrinck, Niemiec, Soenens, De Witte, & Van den Broeck, 2007) and in spare time (Leversen, Danielsen, Birkeland, & Samdal, 2012).

Deci and colleagues (2006) looked into autonomy support in close friendships of university students in two studies. Study 1 showed that feeling of autonomy support from close friend affected needs satisfaction with that friend as well as the quality of the friendship in terms of emotional reliance, dual adjustment, and inclusion of friend in self. These findings were mutual and relevant in male-male and female-female type of close friendships. Study 2 also examined the

relationship between autonomy support and psychological well-being. Receiving autonomy support associated with higher positive affect and lower negative affect.

Demir and Davidson (2013) studied the effects of capitalization attempts (informing the other about news), perceived mattering and needs satisfaction on happiness with a sample of university students (age range in 18-29). Although all friendship indicators positively correlated with happiness, gratification of basic needs was the best predictor of happiness across gender.

Hadden and associates (2014) conducted two studies investigating the links between basic needs, self-image and self presentation. In the first study, they looked at the influence of needs gratification on self image among university students (aged 18-45) in friendship context. The second study replicated the findings among university students (aged 18-56) in romantic relationships. Findings indicated that needs gratification linked negatively with the wish to keep a specific self-image and for self-presentation.

Filak and Sheldon (2003) examined needs satisfaction with undergraduate students in two studies. In Study 1, students administered basic needs scale and teacher and course evaluation at the end of the semester. Results showed that overall needs satisfaction was positively related with the evaluations of teacher and the course.

In an adult sample, Deci and collaborators (2001) found that autonomy support in work place promotes needs fulfillment, hence task related motivation and well being at work. Similarly, Vansteenkiste and colleagues (2007) conducted two studies on Belgian workers (aged 25-56). Study 1 assessed the effects of work

orientation on work outcomes while Study 2 assessed the mediational effect of needs satisfaction on this relationship. First study demonstrated that compared to intrinsic, extrinsic work value orientation associated negatively with life satisfaction, job satisfaction and life happiness. Results of the second study showed that extrinsic work value orientations negatively predict job outcomes (i.e., greater emotional exhaustion, short term gratification from goal achievement, and turn-over plan) through frustration of basic needs.

The association between basic needs fulfillment in leisure activities and life satisfaction was examined with a Norwegian adolescent sample aged 15-16 (Leversen et al., 2012). Fulfillment of competence and relatedness mediated the link between activities and life satisfaction in a positive way.

All in all, studies of basic needs satisfaction in various contexts suggest that they are universal. Basic psychological needs are suggested to be universal although the way they are perceived may change from culture to culture (Deci & Ryan, 2000). Despite cultural differences, psychological needs should be gratified for every individual for a healthy development in both individualistic and collectivistic cultures (Chirkov, Ryan, Kim, & Kaplan, 2003; Kağıtçıbaşı, 2007) despite how much people appraise or wish to fulfill the needs in a given culture (Chirkov et al. 2003; Deci & Ryan, 2000). No matter if the behavior is internally or culturally motivated, the lack of satisfaction for these needs may bring negative consequences for people and cultures.

Basic need satisfaction is achieved as a consequence of the influence of social environment one experiences (Patrick, Knee, Canevello, & Lonsbary, 2007).

While some social contexts can facilitate human thriving by satisfaction of basic needs, other social contexts (e.g. working with a controlling coach in a sports team) can frustrate needs which associates with ill-being (e.g. subjective vitality) (Bartholomew, Ntoumanis, Ryan, Bosch, & Thogersen-Ntoumanis, 2011, Study 3; Ryan, Deci, Grolnick, & La Guardia, 2006; Vaansteenkiste & Ryan, 2013). Therefore, examining the effects of different social agencies in the context of SDT is of great importance.

When people's psychological needs are thwarted, they tend to construct defensive attitudes. For instance, if someone has extraordinary urge to feel close to other people, it implies that need for relatedness is thwarted and the person tries to compensate for this need. This type of adjustment in order to compensate for a need is associated with ill being such as low self-esteem and high levels of depressive symptoms (Chen et al., 2015).

The interaction among the three basic psychological needs and the social network offering opportunities for youngsters to fulfill these needs contributes to growth, development of motivation and integrity (La Guardia & Ryan, 2002). Needs satisfaction leads to advanced growth not only in youth but throughout life (Deci & Ryan, 2000a; Ryan & Deci, 2001; Ryan & La Guardia, 2000). As young individuals socialize at home, school and in the larger society, the way and the extent their basic needs are fulfilled may become the most important aspect of how they attend to youth crisis and the wellness afterwards (La Guardia & Ryan, 2002).

2.1.2.1. Basic Psychological Needs Satisfaction in Family-Context

The first agent to influence socialization is the family (Bugental & Goodnow, 1998) and the biggest role is shared among the parents. Family is where children begin to learn about the values and the culture of their society. There are a number of studies looking into the link between parental support of basic needs satisfaction (e.g., Kocayörük, 2012; Sheldon & Niemiec, 2006).

Parental support contributes to psychological well-being, the development of self-determination and the fulfillment of basic psychological needs in youth. The study of Kocayörük (2012) on high school students aged between 14 and 18 (57% females) found that both parents' support is significantly related to self-determination that is linked to the concepts of self-awareness and one's right to choose. Moreover, parental support and involvement was also found to predict better career exploration and an easier transition to college among senior high school students (Dietrich, Kracke, & Nurmi, 2011). When psychological needs are fulfilled by parental support, it strengthens the bond between parents and the adolescents as well as improving the adolescents' school performance and relationships outside the household (La Guardia & Ryan, 2002). Grolnick and Ryan (1989) on their study with elementary schoolers from 3rd to 6th grade also revealed that children with autonomy supportive parents are more involved in school related tasks. In addition, adolescents with parental support for needs satisfaction are more likely to trust their parents, be in collaboration with them and show better well-being in the transition period of adolescence (Ryan, La Guardia, Butzel, Kim, & Chirkov, 2002). Ginsburg and Bronstein (1993) investigated parental influence on children's motivation and academic achievement on 93 children at 5th grade and

their parents. They found that autonomy supportive parenting was linked with intrinsic motivation for learning and better school grades as opposed to parenting with over control, neglect or negative control including punishment or negative judgements.

Sheldon and Niemiec (2006, Study 4) examined the link between need satisfaction with mothers and disruptive behaviors (oppositional defiant and impulsive acts). Data gathered from university students (79% Caucasian) aged between 17 and 34 and their mothers who completed the Disruptive Behavior Disorder Scale (Pelham, Gnagy, Greenslade, & Milich, 1992) for their children. Results indicated a negative relationship between needs satisfaction from mothers and disruptive behaviors.

A cross cultural study on American and Turkish collegiate students (aged 16-22) found that support from parents for basic needs satisfaction predicted general and short-term happiness through feeling of uniqueness (Şimşek & Demir, 2014) and this mediation is valid across cultures.

Gagne, Ryan and Bargmann (2003) examined how needs satisfaction with parents and coaches and autonomy support for motivation influenced young female athletes' well-being. Thirty three participants with an age range between 7 and 18 completed measures of self-regulation, autonomy support and involvement from parents and coach, and attendance in the beginning of the study. They then completed scales of well-being (i.e., positive and negative affect, self-esteem, and subjective vitality), motivation for sports, and basic needs satisfaction before and after practice for four weeks. Results indicated that autonomy support from parents

and coaches was positively correlated with intrinsic motivation and daily needs satisfaction predicted a more stable self-esteem.

A cross-sequential study (Van der Giessen, Branje, & Meeus, 2014) investigated the relative effects of autonomy support from parents and best friend with adolescents (aged between 12 and 20) in five time intervals lasting a year. Findings revealed that autonomy support from parents was negatively correlated with depressive symptoms in all five time points but autonomy support from best friend was not constantly related to depressive symptoms. The correlation between parental autonomy support and depressive symptoms were higher than that of best friend's. Autonomy support from parents was positively correlated with autonomy support from best friend such that the more adolescents felt autonomy support from parents the more they felt autonomy support from best friends.

A longitudinal study investigated the effects of parental needs support on empathy with Belgian 10th graders at three time points (one year in between). Needs support was measured with subscales of responsiveness, autonomy support and psychological control whereas empathy was assessed with subscales empathy concern and perspective taking. Positive relations were found between needs support from both mothers and fathers and empathic functioning. While need supportive fathers positively influenced both boys' and girls' perspective taking at all time intervals, need supportive mothers positively influenced girls' empathic concern only (Miklikowska et al., 2011).

A study conducted with 18 year olds (Kasser, Ryan, Zax, & Sameroff, 1995) found that adolescents having mothers who give inadequate support for autonomy

and relatedness have more extrinsic goals for success. Another study by Ryan and Kuczowski (1994) on adolescents attending 7th, 8th, 9th, and 12th grade revealed that adolescents who established insecure bonds with their parents become timid when it comes to expressing their emotions and they tend to conform to peers more than adolescents who have secure relationships with their parents. These two studies suggest that lack of security with parents and inadequate support for autonomy and relatedness result in adolescents who are preoccupied with materialism and images and who experience trouble with regulating themselves according to their interests.

2.1.2.2. Basic Psychological Need Satisfaction in Peer Context

SDT argues that needs satisfaction depends on need support from the immediate social context. That is, one's basic psychological needs may be gratified with one significant other but not with the other in another social domain. However, gratification of basic needs with different important others (La Guardia et al., 2000) leads to positive outcomes such as secure attachments (Miner & Dowson, 2014).

A bulk of SDT research examined nonreciprocal relationships such as parent-child, teacher-student, coach-athlete, and employer-employee in which one part is superior to or responsible for the other. However, research on the reciprocal kind of relationships like friendship where there are mutual expectations from each party is limited in the present literature (reviews in La Guardia & Patrick, 2009). Intimate friendship as well as romantic partnership is a predominant relationship type in adolescence and adulthood. It is nonkin, voluntary and requires more effort from each individual to form and maintain the relationship (Roberts & Dunbar,

2011). Therefore, gratification of basic needs in these relationships also informs about well-being.

Different important figures influence different decisions in life. For example, a study (Ng, Ntoumanis, Thøgersen-Ntoumani, Stott, & Hindle, 2013) investigated the role of significant others in the association between weight management and its correlates of need satisfaction and well-being (life satisfaction) with a sample of adults aged between 17 and 44 (80% women). Forty seven percent of the respondents rated their spouse or boyfriend/girlfriend as the central figures to encourage exercise behavior while %32 rated close friends. Seventy one percent rated their spouse or boyfriend/girlfriend as the significant figure to promote diet behavior while only 15 percent of the respondents rated their parent as the important person to influence diet behavior. These findings indicate that different important others might influence different aspects of life and relationships with significant figures other than parents can account more than parent for some aspects of positive development.

Adolescence is a period when the thoughts of peers have a bigger influence on teens compared to those of parents' and others' in the family (Larson & Richards 1991; Larson et al., 1996). Adolescents feel in need of relationship with and support from peers and other adults (Eccles & Roeser, 2009; Oberle, Schonert-Reichl, & Zumbo, 2011). In fact, adolescents move from the need of parental closeness to peer closeness (Josselson, 1987). In adolescence, the need for closeness is gratified by belonging to peer groups (Baumeister & Leary, 1995). Group membership also enables adolescents to share experiences and having support and appraisal about

themselves (McCabe et al., 1991). Acceptance from peers and not being rejected becomes one of the central concerns during adolescence. Acceptance in a group and having quality friendships seen as protective factors in case of social anxiety and depressive symptoms (La Greca & Harrison, 2005). Adolescent peer relationships were also positively linked to better psychological health and adjustment to environment (La Greca & Harrison, 2005; Yeung & Leadbeater, 2010). They tend to become interested in gaining independence from parents and self-regulation. O'Brien and Bierman (1988) suggested that among teens aged between 13 and 17, self-worth was evaluated through how one is perceived by his/her peers. Therefore, it is important to examine the satisfaction of basic psychological needs in the peer context as well as parental context.

La Guardia and her colleagues (2000) examined the link between attachment and basic needs satisfaction and their influence on well-being with a sample of university students (89 women) in three consecutive studies. There were four relationship types that participants responded needs satisfaction with (i.e. mother, father, romantic partner, close friend). First study showed that higher needs satisfaction corresponds with higher felt security in a given relationship. Within person needs satisfaction explained more variance (56%) in felt security than between person variance. Study 2 showed that higher needs satisfaction related with more overall attachment security, more positive model of self and other in the relationship. Study 3 revealed that different relationship corresponds with various levels of attachment security, model of self, and other in the relationship. The highest needs satisfaction was with best friend and it predicted the greatest

attachment security as well as better perception of oneself and other. Gratification of needs with one's best friend is linked with attachment security with the best friend (La Guardia et al., 2000) as well as trust in best friend on emotional support (Ryan, La Guardia, Solky-Butzel, Chirkov, & Kim, 2005).

A study on the needs satisfaction of undergraduate students (18-29 year olds) in multiple relationship figures found that the highest needs satisfaction was with best friend and then with romantic partner, mother, and father respectively. Also, positive correlation was found between emotional reliance and needs satisfaction such that higher levels of needs satisfaction predicted higher emotional reliance for the relevant relationship (Ryan et al., 2005, Study 2).

Milyavskaya and his colleagues (2009) looked into the relationship between needs satisfaction and correlates of well-being and school adjustment at home, in school and with peers. Adolescents aged between 11 and 18 completed self-report questionnaires of well-being indicators (positive/negative affect and positive self-concept), school drop-out intentions and teachers rated students' school adjustment in terms of optimism and self-efficacy. Their findings showed that needs satisfaction in each context as well as balanced needs satisfaction across contexts were positively correlated with well-being. Further, satisfaction of basic needs at school was the best predictor of school adjustment and needs satisfaction at home was only significantly correlated with drop-out intentions. Interestingly, need satisfaction with peers had a negative correlation with drop-out intentions and a marginally negative correlation with teacher reports of adjustment. Balanced needs satisfaction was negatively correlated with school adjustment. Regarding these different

influences, investigation of needs satisfaction across family and peer contexts becomes very important.

2.1.3. Identity Development

Erikson (1968) proposed a psychosocial development model with eight stages. Every stage has conflicts that are needed to be solved to pass into the next one. Identity development takes part in the fifth stage, namely identity versus identity confusion which occurs in adolescence. In order to explain identity development, Erikson proposed two terms: identity synthesis and identity confusion. Identity synthesis refers to one's self chosen values, goals and commitments to form an identity. On the other hand, identity confusion is a term used for the inability to make useful goals and commitment in adolescence (Erikson, 1968; Schwartz, 2001). According to Erikson, adolescents' challenge in this stage is to form an identity and defeat role confusion. Adolescents try to find answers to who they are and what they are going to do with their lives. They practice various identities by engaging in different activities. They are expected to form a sense of self as well as obtaining roles to place in society. They begin to question ideologies and think of political and religious views as well as occupational pathways about how they are going to adopt themselves to them. Achieved identity brings in an organized set of social roles, values and aspirations in life while an unresolved identity leads to uncertainty in all these areas (Erikson, 1968).

The period of adolescence is significant for the transition from childhood to adulthood but identity development is not limited to adolescence (Marcia, 1980). In contrast to Erikson, Arnett (2000) argues that identity exploration is not completed

at the end of adolescence but continues in emerging adulthood where individuals experiment trials for three essential areas of occupation, romantic relationships and worldview. Arnett (2005) identified emerging adulthood as the period starting at 18 years of age continuing until 25 which could also prolong up to late twenties for some individuals. He believes that increased age for marriage, having children, and various other grown up acts due to industrialization in some countries prolonged the shift from childhood to adulthood. Thus, a new period known as emerging adulthood was conceived and identified as “change and exploration” (Arnett, 2005, p. 479). In addition, Arnett describes emerging adulthood as the in between state where individuals neither feel like adolescent nor an adult. He states that this hesitation of evolving through adulthood is due the difficulties of taking responsibilities of personal actions, making individual life decisions and starting up financial independence (Arnett, 2000; 2004). Studies in Turkey (e.g. Atak, 2005; Atak & Çok, 2008; Morsünbül, 2013) that are conducted with university students show that emerging adulthood is a prevalent period in Turkey. Morsünbül’s study (2013) comparing nonstudents to university students between 19-25 years old suggested that emerging adulthood in Turkey is limited to university students and it does not apply to working university graduates or youth working after high school.

2.1.3.1. Identity Formation

Erikson’s psychosocial stages theory is a milestone for manifesting identity development but the terms identity and identity confusion are ambiguous making it difficult to operationally construct and measure identity. Marcia (1966) contributes to Erikson’s identity concept with suggesting two identity processes that are termed

as exploration and commitment. Exploration is seeing different alternatives and trying out social roles. Commitment is adopting a set of roles and embracing them. Marcia suggests four identity statuses based on the combinations of exploration and commitment processes: identity achievement, identity moratorium, identity foreclosure, and identity diffusion. Marcia defines one with an identity achievement to have searched for different identities and committed to one that he/she thinks best fit for himself/herself. Individuals with identity achievement are the ones who solved crisis regarding identity confusion. In contrast, identity diffusion describes the case of those free of identity crisis. They have not initiated any kind of identity search or concerned about identity choices. Consequently, they have not made commitments yet. Further, in identity moratorium, the individual struggles to make commitments. He/she concerns about personal, familial and societal values and roles but is not able to decide among them. Lastly, people who have commitments without practicing a crisis are considered in the identity foreclosure status. These individuals are thought to adopt what others presented for them without considering personal interests or goals.

Marcia (1976) proposed that identity formation takes place in adolescence through early adulthood and follows an improvement from one identity status to another. Longitudinal studies (e.g., Kroger & Marcia, 2011; Waterman, 1993) suggested that with age, identity statuses transit from diffusion and foreclosure to moratorium and achievement. Particularly, studies focusing on the change in identity statuses showed that there was a decrease in identity diffusion and an increase in identity achievement from adolescence to adulthood (e.g., Meeus, 1996;

Meeus, Iedema, Helsen, & Vollebergh, 1999; Yip, Seaton, & Sellers, 2006). In his study, Meilman (1979) compared five age groups of individuals (12, 15, 18, 21 and 24 year olds) on identity statuses. He found that there are more individuals with identity foreclosure and diffusion in younger groups and more individuals with identity achievement in older groups. Waterman and Waterman (1971) suggested that identity maturation occurs by a decrease in diffused identities and an increase in exploration after entering university. Therefore, as year of university education increase, a decrease in diffusion and an increase in achievement is expected.

Further, Waterman (1993) states that the first statuses individuals develop (i.e., foreclosure or diffusion) are mostly shaped by familial interactions and the extent of variety in social experiences. When one does not feel gratification and receive approval from his/her social environment about the initially obtained foreclosure, one experiences crisis. Similarly, crisis may arise when one with identity diffusion as primary status is expected to commit to an identity and foresee pleasant outcomes. Both conditions include interactions with family and other social contexts and experiencing novel situations in order to trigger change in identity statuses.

Identity achievement and foreclosure are two identity statuses that are high in commitment. Identity achievers are people who have reached commitments after a time of exploration. On the contrary, foreclosures are holding on to transferred identities rather than having constructed their own through exploration (Kroger & Marcia, 2011). Achieved identities are inclined to be more adjustable compared to commitments made by force or without pursuit of alternatives (Kroger & Marcia,

2011). Commitments after successive search lead to better self-regulation and development of psychosocial functioning. Foreclosed identities can be enduring as well. However, apart from being solid identities, identity foreclosures are considered less flexible and adjustable than self-determined commitments and not so contributive of cultivated psychosocial functions (Marcia, 1993). Their psychological comfort is to be maintained only if these people stay in the same social environment they were used to in the early years of life (Marcia, 2002). Otherwise, people with foreclosed identities will have imbalance and suffer from distress.

On the contrary, moratorium and diffusion are two identity statuses that are low in commitment but they are distinct statuses. While moratoriums are in active search for identities and have possible directions to follow, identity diffusions neither interested in search nor equipped with future directions. Diffusion identity is associated with distressful selves and maladjustment (i.e. conduct problems and hyperactivity among junior and senior high school students) (Adams, Munro, Doherty-Poirer, Munro, Petersen, & Edwards, 2001). For this reason, commitment plays an important role in developing a secure and stable identity (Berzonsky, 2003).

Nevertheless, being in the moratorium statuses does not necessitate a weak condition since identity formation may linger in industrialized societies and the pursuit of identity can last until young adulthood but identity diffusion may lead to negative outcomes. Most people in moratorium are expected to achieve a clear identity style by reason of the social interactions and psychological fulfillment from

their surroundings while persons in diffusion maintain in that status. Some youngsters holding a diffused identity seem careless but the remaining feels distress for not having directions in life and due to challenges of identity related tasks. According to Berzonsky (1989), some individuals in identity diffusion status adopt a diffuse-avoidant identity style where they procrastinate from solving identity crisis. These youngsters show low self-esteem, negative self-concept, lack of self-regulation and pre-decisional anxiety (feel of panic and refusal of identity related decision making) (Berzonsky, 2003; Berzonsky & Ferrari, 1996). In addition, they display problems in family relationships (Crocetti, Cherubini, & Palmonari, 2011; Matheis & Adams 2004; Passmore, Fogarty, Bourke, & Baker-Evans, 2005), express little empathy and are less likely to engage in prosocial behaviors (Smits, Doumen, Luyckx, Duriez, & Goossens, 2011; Soenens, Duriez, & Goossens, 2005).

In sum, studies of identity statuses consider moratorium and achievement as successful identity statuses in comparison to foreclosure and diffusion that are perceived less mature (Kroger, 2006; Kumru & Thompson, 2003; Marcia, 2002).

2.1.3.2. The Importance of Peers in Identity Development

Erikson (1968) states that one's identity comprises but not limited to early identification with caregivers that children wished to or were forced to make. But successful identities can only be achieved with peer interactions and relations with important adults who are not from the family (Erikson, 1968, p.87). Larger changes in identity seem to happen in university period due to the shift from high school to college and the opportunities college life present to students for identity development (Kalakoski & Nurmi, 1998; Luyckx, Goossens, & Soenens, 2006).

Young individuals are likely to experience transformation in relationships and roles in university years because they spend more away time from home and parents and increased time with friends and adults other than their parents such as their teachers or coaches. Moreover, most of the emerging adults are involved in intimate friendships and many have romantic partners (Collins & Madsen, 2006) which they see as significant figures in their social environment (Fraleley & Davis, 1997). Peer relations fulfill individuals' relatedness needs and boost self-worth. Given the importance of friendship in adolescence and emerging adulthood, it could be expected that peer relations are associated with identity development.

2.1.4. Basic Needs and Identity Statuses

Self-determination theory is an exploratory theory for understanding the self and identity as well as needs satisfaction (Deci & Ryan, 2000). SDT perspective posits that identities are obtained through basic psychological needs satisfaction (Ryan & Deci, 2003). Basic needs satisfaction helps to explain if and how much individuals will benefit from mature identity formation strategies. SDT argues that individuals have an innate tendency to search for behaviors, interests, social roles and groups that fulfill their basic needs satisfaction. They will also escape from activities or social environments that would frustrate their basic needs (Deci & Ryan, 2000).

Luyckx, Vansteenkiste, Goossens and Duriez (2009) conducted two studies with the participation of high school (16-20 year olds) and university (17-30 year olds) students. The aims were to identify the cross-sectional association between the basic psychological needs satisfaction in general context (psychosocial environment

in general) and identity formation and to examine the direction of the relationships. They tested three longitudinal models that are the main effects of basic needs satisfaction, the main effects of identity and the interchangeable relationship model. Results indicated a significant relationship between all three of the basic needs and identity dimensions. The direction from basic needs to identity had a stronger significance than the adverse direction. Basic needs gratification functioned as a fuel for identity dimension. Gratification of all basic needs and them individually affected changes in the identity formation through time. Especially identification with commitment was affected by the comprehensive gratification of psychological needs as well as their separate fulfillment. So, higher scores in needs satisfaction in total facilitates identity decisions but in particular, just feeling autonomous or competent or as a member of a loving group can help one's identification with his/her commitment.

Faye and Sharpe (2008) hypothesized that identity and intimacy would predict academic motivation through basic needs fulfillment. They surveyed Canadian university students aged between 18 and 25 through the measure of The Erickson-Psychosocial Stage Inventory (Rosenthal, Gurney, & Moore, 1981) and Basic Needs Satisfaction Scale (Deci & Ryan, 2000b). As a result, competence and identity were highly related to academic motivation.

Although both parents influence their children in many ways, there is also evidence in the literature for the differential effects of mothers and fathers on youth development (e.g. Beyers & Goossens, 2008; Fullinwider-Bush & Jacobvitz, 1993). This might be because of men's and women's distinctive social roles and parenting

styles (Gamble, Ramakumar, & Diaz, 2007). Fathers and mothers socialize with their children in fairly differential ways (Siegal, 1987). Mothers are more in charge of adjustment of their offsprings. They provide a nurturing environment and communicate feelings (e.g. Lewis, Feiring, & Weinraub, 1981). Differently, fathers are explorative agents in the household (Stolz, Barber, & Olsen, 2005). Parental relative influence on youth development was evident in the identity literature (Beyers & Goossens, 2008; Fullinwider-Bush & Jacobvitz, 1993).

The research (Fullinwider-Bush & Jacobvitz, 1993) examining familial support and restriction on young adult women's identity development revealed that adolescent girls are likely to make commitments based on familial values and expectancies without exploration if they do not receive autonomy support from their mothers. Absence of fatherly autonomy support was also related to less exploration and commitments. While autonomy and simultaneous connectedness were positively related to exploration in peer and romantic relationships; restrictions, intrusive parenting and role confusions were negatively related to exploring identities especially in romantic relationship.

A longitudinal study by Beyers and Goossens (2008) examined identity formation and parental support (i.e. responsiveness, autonomy support, and low psychological control) on Belgian collegiate late adolescents (aged 18-20). Participants completed measures in the first and second year of college. Identity was measure with the Ego Identity Process Questionnaire (EIPQ; Balistreri, Busch-Rossnagel, & Geisinger, 1995). Result showed that identity exploration increases during university years. Parental support was significantly related to exploration and

commitment. Findings also suggested differential influences for maternal and paternal support on identity formation. While mothers' supportive parenting encouraged commitment, fathers' supportive parenting encouraged exploration.

2.2. The Present Study

Previous studies (e.g. Deci & Ryan, 2000a; Faye & Sharpe, 2008; La Guardia, 2009; La Guardia & Ryan, 2002; Ryan & Deci, 2000) have shown that parental support for the fulfillment of basic psychological needs leads to positive identity development in adolescence and emerging adulthood. In addition, needs satisfaction with friends was found higher than with parents (La Guardia et al., 2000). In the light of the current literature, the present study aimed at investigating the relationship between perceived basic psychological needs satisfaction in parental and peer contexts and emerging adults' identity development. The main purpose of the present study was to examine whether there is a significant difference between basic needs satisfaction with parental and peer contexts and to assess the relative contributions of basic psychological needs satisfaction in each relationship contexts (i.e., with mother, father, and best friend) on emerging adults' identity statuses. On the other hand, the effect of year of university education on identity statuses will be explored. As previous studies showed, as students mature an increase in identity achievement and a decrease in identity diffusion is expected (e.g. Meeus, 1996). In an attempt to study aforementioned associations, the current study investigated the following research questions and tested the hypotheses below:

- 1) What is the relationship between the perceived gratification of basic psychological needs and identity statuses in emerging adult-parent context?

- 2) What is the relationship between the perceived gratification of basic psychological needs and identity statuses in emerging adult-peer context (as in best friend)?

H.1. Perceived basic psychological needs satisfaction with mother, father, and best friend will have a positive correlation with identity statuses of achievement and moratorium.

H.2. Perceived basic psychological needs satisfaction with mother, father, and best friend will have a negative correlation with identity foreclosure and identity diffusion.

- 3) Is there a difference between basic psychological needs satisfaction with parents and with peers on identity statuses?

H.3. Needs satisfaction with best friend will be significantly greater than needs satisfaction with mother and with father.

- 4) Is there an effect of year of education on identity statuses?

H.4. Freshman students will have higher scores in identity diffusion and lower scores in identity achievement as compared to students who studied five years or more in university.

- 5) What is the relative contribution of gratification of basic psychological needs in two relationship contexts (i.e., relationship with best friend and relationship with parents) to emerging adults' identity statuses?

H.5. Satisfaction of basic needs with best friend will predict identity statuses over and beyond the contribution of basic need satisfaction with mother and father.

CHAPTER 3

METHOD

This chapter contains the methodology of the present study that is explained in sections of participants, procedure, measures, data preparation and preliminary analyses.

3.1. Participants

Data were collected from 344 participants via Qualtrics. A group of participants (15.12%) was excluded from the sample because they either did not complete the questionnaires or they did not meet the sample criteria (e.g. not being a university student, or being over 26 years of age). In addition, 4 multivariate outliers were omitted. The final sample consisted of 288 university students aged between 18 and 26 ($M_{age} = 21.99$, $SD = 1.98$). Of these, 215 (75%) participants were female and 72 (25%) participants were male, while only one participant (.3%) did not disclose information regarding gender. Majority of the sample were undergraduates (87%) while 13% was in a graduate program. A great deal of participants (43%) was majoring in psychology. The remaining studied in various faculties including Business, Social Sciences, Foreign Languages, Medicine, Education, Engineering, Law, Fine Arts, Science, Aviation and Architecture. Socioeconomic status (SES) was determined through parental level of education. Table 3.1 illustrates the characteristics of the sample in percentages.

Table 3.1
Characteristics of the Sample (N = 288)

Variables	N	Percentage
Gender	287	
Male	72	25%

Female	215	75%
Education Level	286	
Undergraduate study	249	87%
Graduate study	37	13%
Year of Education	275	
one year	43	14.9%
2 years	45	15.6%
3 years	88	30.6%
4 years	62	21.5%
5 years or more	37	12.8%
Mother's Education Level	288	
Less than high school	69	24%
High school or more	219	76%
Father's Education Level	287	
Less than high school	53	18.3%
High school or more	234	81.3%

3.2. Procedure

Data were collected through convenient sampling and snowballing.

Participants filled out self-report questionnaires online via Qualtrics which were distributed through e-mail or social media. The participants attended voluntarily and they were informed about anonymity and confidentiality and that they could quit any time without penalty. Measures and the procedure of data collection were approved by the ethical committee of Ozyegin University.

3.3. Measures

This section includes information about the psychometric properties of the scales used in the present study.

3.3.1 Perceived Basic Need Satisfaction Scale (La Guardia et al., 2000, Study 2). Basic Needs Satisfaction Scale was utilized to assess the extent of gratification individuals perceive regarding the needs of autonomy, relatedness and

competence from mother, father, and friend. The original scale is a 7-point Likert type scale with nine items. There are three items for each psychological need. Respondents rate the degree of needs satisfaction when they are with the specific person. The overall need satisfaction score comes from the average of the all items for each relationship. Three items were reverse coded before averaging the raw scores. Higher scores reflected higher satisfaction. The scale can be used to assess support for needs satisfaction from one's mother, father, lover, best friend, roommate or a significant adult in one's life. In the original study (La Guardia et al., 2000), reliability scores for the target people for the total scales were found .91, .94, .88, .85, .90 and .90 respectively. Examples for each need subscale include: "I feel free to be who I am when I am with my mother/father/best friend" (autonomy), "I feel like a competent person when I am with my mother/father/best friend" (competence), and "I feel loved and cared about" (relatedness). Need Satisfaction Scale was translated into Turkish by Dost-Gözkân (2016) and used in a 5-point Likert type form to measure individuals' perceived needs satisfaction from their mother and father. Responses range from 1 (*not at all true*) to 5 (*completely true*). Turkish version of the scale had reliability coefficients of .81 .83 and .78 for the adolescents' (age range 11-18) perceived basic needs satisfaction in relationship with the mother, father and best friend, respectively (Dost-Gözkân, 2016). In the present study, the reliability coefficients were .86, .89, and .80 for the needs satisfaction with mother, father and best friend, respectively. As La Guardia and colleagues (2000) suggested, the initial analyses were conducted with the total of nine items. (see Appendix A).

3.3.2 Extended Version of the Objective Measure of Ego Identity Status

(EOMEIS; Bennion & Adams, 1986). EOMEIS was developed by Bennion and Adams (1986) as a revision to Objective Measure of Ego Identity by Adams, Shea and Fitch (1979) to measure identity statuses of individuals aged between 13 and 30 years. It is a six point Likert type scale with 64 items. The responses range from 1 (*completely agree*) to 6 (*completely disagree*). The scale consists of two domains that are ideological identity (32 items) and interpersonal identity (32 items). The ideological identity aims to measure political, vocational, religious and philosophical self while the interpersonal identity domain measures gender roles, leisure activities and interpersonal relationships such as friendship and romantic commitment. Every item examines crisis and commitments that individuals experience. Each domain has four subscales representing Marcia's (1966) four identity types of identity achievement, moratorium, foreclosure and diffusion which create eight categories. There are 16 items for every subscale and eight items for every subcategory. Sample items are "It took me a while to figure it out, but now I really know what I want for a career." (occupation-achievement), "My ideas about men's and women's roles are identical to my parents" (sex role-foreclosure), "While I don't have one recreational activity that I'm really committed to; I'm experiencing numerous activities to identify one I can truly enjoy," (recreation-moratorium) and "I don't have any close friends-I just like to hang around with the crowd and have a good time" (friendship-diffusion). One can score between 16 and 96 for each identity status. Lower scores indicate higher levels of the associated identity status.

Bennion and Adams' study (1986) with university students reported Cronbach alpha level of internal consistency between .58 and .80 for all the identity categories with a median of .63 showing adequate reliability. EOMEIS was adapted to Turkish by Oskay (1998). For the identity statuses of achievement, moratorium, foreclosure and diffusion, Cronbach alpha level of internal consistency was found to be .75, .73, .84, and .67, respectively. The split half test reliability was found respectively .74, .73, .86, and .65. In the present study, the reliability coefficients were .85, .79, .93, and .79 for identity achievement, moratorium, foreclosure and diffusion, respectively (see Appendix B).

3.3.3. Demographics Questionnaire. Demographic information form included items about age, gender, educational level, SES (parental education and income) as well as major and grade of the participant (see Appendix C).

SES was intended to be calculated as the composite score of income and education levels of father and mother. The participants were asked to indicate the monthly income in their household. Most of the respondents indicated their parents' income but some of them stated their own as in scholarship or stipend. This led to discrepancy in the reports of income. Therefore, income was not used in the calculation of SES.

3.4. Data preparation

The initial data included 344 participants of whom 52 were excluded. The exclusion depends on the following criteria: not being a university student, being older than 26 years of age (two 27-year olds, one 29-year old and one 31-year old) or missing data (15 participants did not complete the questionnaires in the way that

they can be used). Further, a preliminary set of regression was conducted to identify outliers. According to Cook's distance plots, there were 4 multivariate outliers which were also omitted from the sample. Thus, the final data included 288 participants. The post-hoc power analysis revealed that with an effect size of $f^2=0.20$ (for the DV of achievement), $f^2=0.18$ (for moratorium), $f^2=0.20$ (for foreclosure), and $f^2=0.20$ (for diffusion), and power value of $1-\beta=0.99$, a sample of 288 participants was satisfactory to make accurate and reliable inferences (G*Power, 2009).

EOMEIS was used in a Likert type format which ranged from 1 "*completely agree*" to 6 "*completely disagree*" where lower scores represented greater identity status. On the other hand, responses of Need Satisfaction Scale ranged from 1 "*completely wrong*" to 5 "*completely true*". This would lead to confusion when interpreting the direction of correlations. Therefore, all items of EOMEIS were recoded to create a consistency between the directions of the scales. Thus, higher scores indicated higher relevance to the identity status in the recoded scale.

3.5. Preliminary Analyses

Even though the present study had a dependent variable with four categories, the scores for the subscales were in a continuum. In order to determine whether the outcome variable could be utilized as a continuous variable, kurtosis and skewness values of the identity statuses subscales were taken as reference. Kurtosis and skewness for three outcome variables except for foreclosure were below 3, which was satisfactory to treat the variables as continuous rather than categorical. Kurtosis and skewness for foreclosure were marginally satisfactory. Therefore, the dependent

variables which are identity statuses were treated as continuous variables in the present study.

In addition, interpersonal and ideological domains for identity statuses were not used as in some studies (e.g. Bergh & Erling, 2005). General identity scores were obtained instead, because research suggested that majority of the youngsters may have prominent commitments to a particular domain but not to some other domains (Bosma & Jackson, 1990). Research also advocates that there is only small congruence between interpersonal and ideological identity domains (Dellas & Jernigan 1990; Fadjukoff, Pulkkinen, & Kokko, 2005; Goossens, 2001; Pastorino, Dunham, Kidwell, Bacho, & Lamborn, 1997).

CHAPTER 4

RESULTS

This chapter reveals findings of the present study in sections of descriptive analyses and regression analyses related to the study variables.

4.1. Descriptive Analyses

Descriptive analyses were conducted to reveal the characteristics of the data.

Table 4.1 shows mean and standard deviation, minimum and maximum values of independent and dependent variables.

Table 4.1
Descriptive Statistics of Study Variables

	N	M	SD	Min.	Max.
Need Satisfaction					
NS with mother	279	12.79	2.19	3.00	15.00
NS with father	265	11.68	2.63	3.67	15.00
NS with friend	270	13.12	1.78	7.00	15.00
Identity Statuses					
Identity Achievement	276	65.93	12.49	16.00	93.00
Identity Moratorium	270	51.28	10.93	18.00	80.00
Identity Foreclosure	278	30.00	14.01	16.00	90.00
Identity Diffusion	275	44.47	11.58	17.00	81.00

Note. NS = Need Satisfaction

Bivariate correlations were conducted to see the correlations among demographics, basic needs satisfaction variables and identity statuses.

4.1.1. Bivariate Correlations between Demographics and Basic Needs

Satisfaction

Correlational analyses of demographic variables (i.e., age, gender, mothers' education level and fathers' education level, participant's year of university education) and basic needs satisfaction (needs satisfaction with mother, father, and

best friend) were carried out. Age and year of university education were positively correlated. Age was significantly negatively correlated with needs satisfaction with father. As students grow older, they feel more satisfied with basic needs from their fathers. Participant's year of university education had a significant negative correlation with need satisfaction with father. As the year spent in university education increased, perceived needs satisfaction with father decreased. Mother's education correlated with age negatively. The older the student was the lower education his/her mother had. Mother's and father's education were positively correlated with one another. Higher mother's education indicated higher father's education. Results are demonstrated in Table 4.1.1.

Table 4.1.1

Bivariate Correlations among Demographics and Needs Satisfaction Variables

Variables	1	2	3	4	5	6	7	8
1.Age	—							
2.Gender	-.11	—						
3.Year of Education	.75**	-.06	—					
4.Mother's Education	.12*	.05	.05	—				
5.Father's Education	.04	.03	.01	.60**	—			
6.NS with mother	-.06	-.01	-.04	.06	.03	—		
7.NS with father	-.13*	-.01	-.16*	-.11	-.10	.57**	—	
8.NS with friend	-.07	.09	.02	-.00	-.07	.57**	.38**	—

Note. * $p < .05$ ** $p < .01$

4.1.2. Bivariate Correlations between Demographics and Identity

Statues

Correlational analyses between demographic variables (i.e., age, gender, mothers' education and fathers' education and participant's year of university education) and identity statues (identity achievement, moratorium, foreclosure and

diffusion) were conducted. Age and participant's year of university education was significantly negatively correlated with moratorium and foreclosure. As students grew older, they were less likely to be in the identity statuses of moratorium and foreclosure. Mother's education significantly negatively correlated with identity foreclosure. Higher mother's education corresponded to lower scores in identity foreclosure. Year of university education was significantly negatively correlated with identity moratorium, foreclosure and diffusion. As many years one spent in university education indicated less chance to have identity statuses of moratorium, foreclosure and diffusion. Results are presented in Table 4.1.2.

Table 4.1.2
Bivariate Correlations among Demographics and Identity Statuses

	1	2	3	4	5	6	7	8	9
1.Age	—								
2.Gender	-.11	—							
3.Year of Education	.75**	-.05	—						
4.Mother's Education	.12*	.05	.04	—					
5.Father's Education	.04	.03	.00	.60**	—				
6.Identity Achievement	.00	.11	.07	.03	.05	—			
7.Identity Moratorium	-.17**	.04	-.13*	-.10	-.06	-.05	—		
8.Identity Foreclosure	-.13*	-.11	-.22**	-.22**	-.08	-.13*	.32**	—	
9.Identity Diffusion	-.04	-.17**	-.19**	-.03	-.03	-.31**	.47**	.44**	—

Note. * $p < .05$ ** $p < .01$

4.1.3. Bivariate Correlations among Basic Needs Satisfaction and Identity Statuses

Correlations among needs satisfaction variables and identity statuses are illustrated in Table 4.1.3. Need satisfaction with mother, father and best friend were significantly positively correlated with one another. Need satisfaction variables were

significantly positively correlated with identity achievement. Increase in needs satisfaction in a social context indicated an increase in identity achievement. Need satisfaction variables were significantly negatively correlated with identity moratorium. As needs satisfaction in a social context increase, identity moratorium decreased. Needs satisfaction with mother was significantly negatively correlated with identity diffusion. Higher need satisfaction with mother decreased the likelihood of holding a diffused identity. There was a significantly positive correlation between need satisfaction with father and identity foreclosure. As needs satisfaction from father increase, identity foreclosure decreased. Need satisfaction with best friend was significantly negatively correlated with identity foreclosure and diffusion. Greater needs satisfaction with best friend related to a decline in identity foreclosure and diffusion. All identity statuses except for identity achievement were positively correlated with each other. Identity foreclosure and identity diffusion were negatively correlated with identity achievement. Increases in identity foreclosure and diffusion corresponded to a decrease in identity achievement.

Table 4.1.3

Bivariate Correlations among Basic Needs Satisfaction and Identity Statuses

Variables	1	2	3	4	5	6	7
1.NS with mother	—						
2.NS with father	.57**	—					
3.NS with best friend	.57**	.38**	—				
4.Identity Achievement	.29**	.17**	.37**	—			
5.Identity Moratorium	-.31**	-.14*	-.28**	-.05	—		
6.Identity Foreclosure	-.08	.14*	-.28**	-.13*	.32**	—	
7.Identity Diffusion	-.21**	-.10	-.36**	-.31**	.47**	.44**	—

Note. NS = Need Satisfaction; * $p < .05$ ** $p < .01$

4.2. Effect of Relationship Context on Basic Needs Satisfaction

Repeated measures one-way ANOVA was conducted to assess the within-subjects effect of relationship context on basic psychological needs satisfaction. Relationship context was entered as the repeated variable and the Bonferroni correction was performed. The results showed a significant group difference between needs satisfaction with mother, father and best friend. Satisfaction of basic needs with best friend ($M = 13.14$, $SD = .11$) was significantly higher than needs satisfaction with mother ($M = 12.86$, $SD = .13$) $p = .05$, $\eta^2 = .20$ and with father ($M = 11.66$, $SD = .16$), $F(1, 785) = 64.73$, $p = .000$, $\eta^2 = .20$. In addition, needs satisfaction with mother was significantly higher than that with father $p = .000$, $\eta^2 = .20$.

4.3. Effect of Year of University Education on Identity Statuses

Multivariate analyses of covariance (MANCOVA) were conducted to assess the effect of year of university education on identity statuses. Five groups of students were generated. The first group consisted of freshman students. The second group included second year students. The third group comprised of the third year students and the fourth group of the fourth year students. Finally, the last group included students who had five years or more university experience. Age and gender were controlled and Bonferroni correction was used in the analyses. The results indicated no significant effect of year of university education on identity achievement $F(4, 237) = 1.41$, $p = .23$, $\eta^2 = .02$. There was a significant effect of year of university education on identity diffusion $F(4, 237) = 3.35$, $p = .01$, $\eta^2 = .05$. The identity diffusion mean score of the first group ($M = 47.40$, $SD = 12.46$) was

significantly higher than the last group ($M = 39.00$, $SD = 11.30$), $p = .004$. $\eta^2 = .71$.

There was no significant mean difference among the first group and Group 2, 3 and 4.

4.4. Analyses of Multiple Regression

A series of backward stepwise regression analyses were run to examine the influence of perceived basic psychological needs satisfaction from mother, father, and best friend on four identity statuses (i.e., achievement, moratorium, foreclosure and diffusion). Backward elimination was chosen due to suppressor effects that happen when a predictor has a significant influence only when keeping some other variables constant (Field, 2009). By doing so, it was intended to decrease the chance of making a Type II error. As bivariate analyses showed, age was negatively correlated with the need satisfaction from father as well as moratorium and foreclosure, and participant's year of university education was negatively correlated with needs satisfaction from father and identity statuses of moratorium, foreclosure and diffusion. In addition, individual samples t-test showed that there was a gender difference for identity achievement and identity diffusion. Therefore, age, gender and participant's year of education were also included in the regression analyses. Finally, mother's education was found to be related to identity foreclosure. Thus, mother's education was entered in the multiple regression analyses for identity foreclosure.

4.4.1. Predicting Identity Achievement

The first set of stepwise regression analyses with backward method addressed the relationship between need satisfaction and identity achievement.

Table 4.4.1 illustrates the results. In the first step, all predictor variables (i.e. need satisfaction with mother, father and best friend, age, gender and year of university education) were entered in the regression equation. The first model predicted identity achievement. The second step, because need satisfaction with father was the

Table 4.4.1

Backward Stepwise Regression Analyses for Identity Achievement

Predictor variables	Adjusted R ²	ΔF	B	SE B	β	P
Step 1	.141	8.00***				
Age			-.38	.56	-.06	.50
Gender			2.43	1.70	.08	.15
Year of Education			1.11	.76	.13	.14
NS with mother			.75	.46	.13	.10
NS with father			.02	.34	.00	.95
NS with friend			1.96	.51	.28	.000
Step 2	.145	.00				
Age			-.38	.56	-.06	.50
Gender			2.43	1.69	.08	.15
Year of Education			1.11	.75	.13	.14
NS with mother			.76	.41	.13	.06
NS with friend			1.97	.50	.28	.000
Step 3	.147	.47				
Gender			2.58	1.68	.09	.13
Year of Education			.72	.49	.09	.14
NS with mother			.75	.40	.13	.07
NS with friend			2.01	.50	.29	.000
Step 4	.143	2.15				
Gender			2.50	1.68	.09	.14
NS with mother			.70	.40	.12	.09
NS with friend			2.06	.50	.29	.000
Step 5	.139	2.22				
NS with mother			.65	.40	.11	.11
NS with friend			2.15	.50	.31	.000
Step 6	.133	2.59				
NS with friend			2.60	.41	.37	.000

Note. N = 276; NS = Need Satisfaction; *** $p < .001$

weakest predictor, it was excluded from the regression model. Age was removed in the third step, year of university education in the fourth step, gender in the fifth step and needs satisfaction with mother in the sixth step of the regression. As a result, Model 6 included need satisfaction with best friend as the predictor. Needs satisfaction with best friend predicted identity achievement.

4.4.2. Predicting Identity Moratorium

Second, identity moratorium was regressed backward on need satisfaction with mother, father and best friend, age, gender and year of university education.

Table 4.4.2

Backward Stepwise Regression Analyses for Identity Moratorium

Predictor variables	<i>Adjusted R²</i>	ΔF	B	SE B	β	<i>P</i>
Step 1	.129	7.23***				
Age			-.85	.50	-.15	.09
Gender			.81	1.50	.03	.59
Year of Education			-.28	.67	-.04	.68
NS with mother			-1.25	.40	-.25	.002
NS with father			.16	.30	.04	.59
NS with friend			-1.01	.45	-.17	.03
Step 2	.132	.17				
Age			-1.00	.33	-.18	.003
Gender			.76	1.50	.03	.61
NS with mother			-1.24	.40	-.25	.002
NS with father			.18	.30	.04	.56
NS with friend			-1.04	.44	-.17	.02
Step 3	.135	.26				
Age			-1.02	.33	-.19	.002
NS with mother			1.26	.40	-.25	.002
NS with father			.17	.30	.04	.57
NS with friend			-1.01	.44	-.17	.02
Step 4	.137	.33				
Age			-1.04	.32	-.19	.001
NS with mother			-1.15	.36	-.23	.001
NS with friend			-.99	.44	-.16	.02

Note. N = 270; NS= Need Satisfaction; * $p < .05$ ** $p < .01$ *** $p \leq .001$

Table 4.4.2 presents the findings. The first model predicted identity moratorium. In the second step, year of university education was excluded from the regression model, gender was removed in the third step and need satisfaction with father was removed in the fourth step. As a result, Model 4 included three predictor variables that are age, need satisfaction with mother and need satisfaction with best friend. The fourth model predicted identity moratorium. The examination of partial correlation coefficients indicated that age accounted for 4% of the variance. Need satisfaction with mother accounted for 4% of the variance, and need satisfaction with best friend accounted for 2% of the variance.

4.4.3. Predicting Identity Foreclosure

Third, identity foreclosure was regressed backward on need satisfaction with mother, father and best friend, age, gender and year of university education and mother's education. Results are illustrated at Table 4.4.3. The first model predicted identity achievement. In the second step, need satisfaction with mother was excluded from the regression model, age was removed in the third step and gender was removed in the final step. As a result, Model 4 included three predictor variables that are year of university education, mother's education, need satisfaction with father and need satisfaction with best friend and it predicted identity moratorium. The examination of partial correlation coefficients indicated that year of university education accounted for 3% of the variance, mother's education accounted for 4% of the variance and need satisfaction with father and best friend accounted for 5% and 12% of the variance, respectively.

Table 4.4.3
Backward Stepwise Regression Analyses for Identity Foreclosure

Predictor variables	<i>Adjusted R²</i>	ΔF	B	SE B	β	<i>P</i>
Step 1	.194	9.76***				
Age			.37	.62	.05	.55
Gender			-2.04	1.85	-.06	.27
Year of Education			-2.01	.83	-.21	.02
Mother Education			-1.82	.56	-.19	.001
NS with mother			-.11	.50	-.02	.82
NS with father			1.23	.38	.23	.001
NS with friend			-2.69	.55	-.34	.000
Step 2	.197	.05				
Age			.36	.62	.05	.56
Gender			-2.01	1.84	-.06	.28
Year of Education			-2.00	.83	-.21	.02
Mother Education			-1.84	.55	-.19	.001
NS with father			1.19	.33	.22	.000
NS with friend			-2.74	.49	-.35	.000
Step 3	.199	.35				
Gender			-2.17	1.82	-.07	.24
Year of Education			-1.64	.54	-.17	.003
Mother Education			-1.80	.55	-.19	.001
NS with father			1.20	.33	.23	.000
NS with friend			-2.78	.48	-.35	.000
Step 4	.198	1.42				
Year of Education			-1.61	.54	-.17	.003
Mother Education			-1.83	.55	-.19	.001
NS with father			1.22	.33	.23	.000
NS with friend			-2.84	.48	-.36	.000

Note. N = 278; NS = Need Satisfaction; * $p < .05$ ** $p < .01$ *** $p \leq .001$

4.4.4. Predicting Identity Diffusion

The final regression analyses were conducted for identity diffusion. Results are demonstrated at Table 4.4.4. The first step included all predictor variables (i.e. need satisfaction with mother, father and best friend, age, gender and education level). The first model predicted identity diffusion. Needs satisfaction with father

was excluded in the first step and need satisfaction with mother was removed in the third step of the regression model. As a result, Model 3 included four predictor variables that are age, gender, year of university education and need satisfaction with best friend. The third model predicted identity diffusion.

Table 4.4.4
Backward Stepwise Regression Analyses for Identity Diffusion

Predictor variables	<i>Adjusted R²</i>	ΔF	B	SE B	β	P
Step 1	.188	10.85***				
Age			1.16	.51	.20	.02
Gender			-3.33	1.53	-.13	.03
Year of Education			-2.81	.68	-.36	.000
NS with mother			-.34	.41	-.06	.41
NS with father			.11	.31	.02	.73
NS with friend			-1.94	.46	-.30	.000
Step 2	.191	.12				
Age			1.16	.51	.20	.02
Gender			-3.34	1.53	-.13	.03
Year of Education			-2.83	.68	-.36	.000
NS with mother			-.28	.37	-.05	.45
NS with friend			-1.93	.45	-.30	.000
Step 3	.192	.57				
Age			1.14	.51	.20	.03
Gender			-3.26	1.52	-.12	.03
Year of Education			-2.79	.68	-.36	.000
NS with friend			-2.12	.37	-.33	.000

Note. N = 275; NS = Need Satisfaction; * $p < .05$ ** $p < .01$ *** $p < .001$

The examination of partial correlation coefficients indicated that age accounted for 2% of the variance, gender accounted for 2% of the variance, year of university education accounted for 6% of the variance and need satisfaction with best friend accounted for 12% of the variance.

In summary, findings from four backward regression analyses indicated that, after controlling for covariates (age, gender, and year of university education),

gratification of basic psychological needs with best friend predicted identity achievement and identity diffusion. Gratification of basic psychological needs with mother and best friend jointly predicted identity moratorium while needs gratification from father and best friend jointly predicted identity foreclosure.



CHAPTER 5

DISCUSSION

This chapter discusses the purpose and the results of the present study. It also elaborates the strengths and weaknesses of the study and gives suggestions for future research.

5.1. The Aim and Findings of the Present Study

The purpose of the current study was examine the relative contribution of relationship contexts and to determine whether there is a differential effect of basic psychological needs satisfaction with parents and with best friend on emerging adults' identity statuses. A sample of university students were recruited to shed light on the influence of perceived basic psychological needs satisfaction introduced by SDT (Ryan & Deci, 2000) on youth's identity statuses (Marcia, 1966). Hypotheses were tested through Pearson correlation, repeated measures one-way ANOVA, ANCOVA and multiple regression analyses. The results are discussed below.

Hypothesis 1: Basic needs satisfaction from mother, father and best friend will positively associate with identity achievement and identity moratorium.

The results partially supported this hypothesis. It was found that basic needs satisfaction from mother, father and best friend significantly positively correlated with identity achievement. As needs satisfaction with parents and peers increased, identity achievement increased as well. Gratification of autonomy, competence and relatedness by significant others contributed to exploration of identities and making identity decisions. In other words, feeling autonomous and competent in one's actions and taking part in caring social relationships helped people make identity

commitments which they can embrace and identify with. This result is in line with SDT's (Ryan & Deci, 2000) claim that gratification of basic needs lead to engaging in behaviors that are identified with the self.

In contrast with the hypothesis, the findings showed that basic needs satisfaction with parents and best friend significantly negatively correlated with identity moratorium. The increase in needs satisfaction with parents and peers led to a decrease in identity moratorium.

This result could be interpreted with the contemporary conceptualization of identity formation following post-industrialization period (Luyckx, Goossens, Soenens, & Beyers, 2006; Schwartz, Zamboanga, Luyckx, Meca, & Ritchie, 2013). Identity opportunities have multiplied with the industrialization of societies. Increase in number of alternatives might be beneficial for ones who make effective use of them but might be confusing for some others who feel overwhelming in the face of many possibilities. For these reasons, some people stay stucked in the exploration stage and cannot develop coherent identities (Schwartz, Cote, & Arnett, 2005). In recent identity research, identity development was explained by a five dimensional model with a focus on the dynamic processes of exploration and commitment (Luyckx, Goossens, Soenens et al., 2006). Identities were classified as exploration in breadth, exploration in depth, commitment making, and identification with commitment. Similar to this operationalization, Meeus and colleagues explained exploration in two dimensions as exploration in-depth and reconsideration (Crocetti, Rubini, & Meeus, 2008; Meeus, van de Schoot, Kaijzers, Schwartz, & Branje, 2010). These two models explain identity in dual-cycle in which identities are

formed, reconsidered and retained. While in-depth exploration refers to evaluation of alternatives thoroughly, reconsideration is elaborating commitments already made in comparison to candidate commitments. They also divided moratorium in two domains as *moratorium* and *searching moratorium*. While moratorium includes people with low commitment scores, moderate in-depth exploration scores and high reconsideration scores, searching moratorium includes ones with high scores in all three aspects. Studies of Crocetti and colleagues with individuals aged between 10 and 19 found that ones in moratorium and searching moratorium had more internalizing and externalizing problems compared to others in achievement, foreclosure and diffusion (Crocetti, Rubini, Luyckx, & Meeus, 2008; Crocetti, Schwartz, Fermani, Klimstra, & Meeus, 2011). Identities with medium or high commitment levels accompanied by low reconsideration levels generate identity stability (i.e., achievement and foreclosure) whereas identities which consist of low commitment and/or high reconsideration generate identity instability (i.e., moratorium, searching moratorium and diffusion). In crosssectional and longitudinal studies of Luyckx and colleagues (2009), while stable identities are bidirectionally correlated with needs satisfaction, instable identities negatively correlated with needs satisfaction. Furthermore, a Japanese study (Hatano, Sugimura, & Crocetti, 2016) conducted with adolescents (13 and 16 year olds) and emerging adults (19 year olds) found that searching moratorium was a healthy functioning status in adolescence associated with less negative outcomes. However, prolonged search and lack of identity commitment was linked with externalizing behaviors in emerging adulthood. In other words, moratorium was not an acceptable status after

adolescence. To sum up, studies that focus on the process of identity formation link moratorium with negative outcomes such as internalizing and externalizing behaviors and associate it negatively with basic needs satisfaction. Although the findings of the present study did not support the hypothesis regarding identity moratorium in terms of Marcia's identity statuses model, they show congruence with the contemporary models of identity formation. If individuals receive autonomy support, they tend to feel less anxious about choosing a suitable identity among possibilities (Soenens, Berzonsky, Vansteenkiste, Beyers, & Goossens, 2005). For the present sample the negative correlation between moratorium and gratification of basic needs might mean that needs satisfaction in relationship with important figures decreases worry caused by the load of alternatives and facilitates identity commitments in emerging adulthood rather than constant exploration.

Hypothesis 2: Basic needs satisfaction from mother, father, and best friend will negatively associate with identity foreclosure and identity diffusion.

Similarly, this hypothesis was partially supported by the study results. There was a significant negative relationship between basic needs satisfaction from mother and identity diffusion which indicated that as basic needs satisfaction from mother increased, the likelihood of having identity diffusion decreased. As SDT discussed, the fulfillment of autonomy, competence and relatedness with mothers encourages engaging in behavior of interest and increases search of possible identities and practice commitments. Thus, it diminishes the likelihood of having a diffused identity.

However, there was not a significant association between basic needs satisfaction with mother and identity foreclosure. In terms of basic needs satisfaction from father, there was a significant positive relationship between basic needs satisfaction from father and identity foreclosure. The more one's basic needs are satisfied by father, the higher the chance that they had a foreclosed identity. Nonetheless, there was not a significant link between basic needs satisfaction from father and identity diffusion.

Different results for mothers and fathers could be interpreted by the role theory which explains how mothers and fathers differ in parenting styles (Hosley & Montemayor, 1997). The theory claims that motherhood is traditionally described as caregiving. Therefore, mothers are socialized to become a source of warmth and nurturance for their children. Differently, fathers are conventionally thought to supply and give discipline which might promote authoritarian attributes for children. Previous research found that regardless of gender, individuals with foreclosed identities associated with the highest level authoritarian values as compared to the ones in other identity statuses (Cote & Levine, 1983). Similarly, the ones with foreclosed or diffused identities found to be more externally oriented and relied on family values in decision making as opposed to achieved and moratorium identities (Waterman, Buebel, & Waterman, 1970; Waterman & Goldman, 1976). These findings contradict with SDT's argument that parental autonomy support encourages individuals to pursue their own interests and develops volitional acting (Soenens et al., 2007). However, it could be that those in the present study with more authoritarian attitudes felt more needs satisfaction with father. They might

perceive a congruency between family values and their personal values and in return this could positively influence foreclosure. However, the present study did not measure authoritarianism so this claim needs further investigation.

The hypothesis was fully supported for peer relationships. Basic needs satisfaction from best friend was significantly negatively correlated with identity foreclosure and identity diffusion. Results indicated that the more one's basic needs are satisfied by their best friend, the less likely they are to have a foreclosed or diffused identity. Congruent with SDT, friends enable a social network where individuals can practice possible selves and get approval from peers on the selected identities. Peers' facilitating role in identity formation decreases the chance of holding onto identity foreclosure and diffusion and boost exploration instead.

Hypothesis 3: Basic needs satisfaction in peer context will be higher than basic needs satisfaction in parental context.

The results supported this hypothesis. Basic needs satisfaction with best friend found to be significantly greater in comparison to needs satisfaction with mother and father. In addition, needs satisfaction with mother was greater than needs satisfaction with father. These findings are similar to those of La Guardia and colleagues' study (2000) which suggested that college students felt most needs satisfaction with their close friends resulting in the highest attachment security and the second highest in relationship with mother among other important relationships (i.e., with father and romantic partner).

Hypothesis 4: Freshman students will have higher scores in identity diffusion and lower scores in identity achievement as compared to students who studied five years or more in university.

This hypothesis was partially supported. According to the results, there was no significant group difference between the first year students and students with at least five year education in terms of identity achievement. However, the two groups were significantly different in terms of identity diffusion such that the first year students had higher identity diffusion scores than the students with at least five year of education. The results indicate that as students move from the first year to fifth year in university, their chance to have identity diffusion decreases. It can be interpreted that university is an important agency in emerging adulthood that provides social groups and unique activities to enable self-directed actions and boost self-esteem which are poor in diffusion. Thus, students develop interest in identity choices so they are less likely to stay in diffused identities as they move to the fifth year. On the other hand, the results showed that university life does not predict a significant change in identity achievement. The reason could be that university helps to get interested in identity related activities so the number of students with diffused identities decrease as they navigate to the fifth year but identity achievement might require more than college education.

Hypothesis 5: Basic needs satisfaction from best friend predicts over and beyond mother and father.

Results are drawn from a series of multiple regression analyses. Identity achievement was positively predicted by basic needs satisfaction with best friend.

Although all relationship types were correlated with identity moratorium, needs satisfaction with mother and best friend jointly negatively predicted identity moratorium but father did not contribute identity moratorium. Needs satisfaction with father and with best friend jointly predicted identity foreclosure. However, while friends negatively predicted identity foreclosure, fathers positively predicted it. The different directions of effects could mean that relationship with the best friend encourages trying out new things and getting out of traditional ways of thinking. As a result, emerging adults give up on foreclosed identities. On the other hand, gratification of needs with the father evokes authoritarianism and traditional values and facilitates identity foreclosure. Lastly, identity diffusion was predicted by need satisfaction through best friend. Mother and father did not account for the variance in identity diffusion.

With regard to basic needs satisfaction with best friend, the results supported the hypothesis that identity statuses will be explained by basic needs gratification in relationships with the best friend over and beyond the basic needs satisfaction in relationships with parents. The findings are line with the previous studies which suggested that peer interaction positively influences identity development (Cotterell, 1996; Nawaz, 2011). The superior importance of friends over parents in emerging adults' identity can be explained by the changes due to industrial developments.

After technological developments in economy, career opportunities have risen rapidly. Instead of determining the career path in high school years, many youngsters started to think about career choices during university education (Cote & Allahar, 2004). Changes also appeared in social life (i.e., romantic relationships)

such that many young individuals now prefer to be single or to live together with their significant other than marrying them (Dykstra & Poortman, 2010; Wiik, 2009). These changes in life style led to modifications in identity development in the very late 20th century and the early 21st century. The post-industrialization was linked to an increase in the rates of pursuing a higher education which prolonged the time to enter workforce, to become financially independent from family, to marry and reproduce (Cote, 2000). The period between adolescence and adulthood that Arnett (2000) named “emerging adulthood” became more distinctive. Compared to adolescents, emerging adults are more in control of their actions because of the decrease in parental control (Arnett, 1998). They are also less entitled to a highly structured learning system and schedule as in high school. Therefore, they have more time available for personal development, forming intimate social networks, experimenting novel things and roles (Arnett, 2005). They perceive friends as well as romantic partners to be significant figures in their lives (Fraley & Davis, 1997). They spend time with close friends more than with parents and they feel content with the relationship because the close friendship is voluntary, and it is a matter of free choice to initiate, sustain and end a friendship (Laursen & Bukowski, 1997). In addition, friendships in emerging adulthood tend to be of better quality than that in adolescence (Barry, Madsen, & De Grace, 2015). The quality of close friendship is related with establishment of adult traits (e.g., an achieved identity, adjustment to adult roles). As emerging adults interact with their friends, they receive emotional support and acceptance which enhances their self-esteem and self-worth along with basic needs gratification. So, they start to seek meaning in life and develop purpose

in life (Chickering & Reisser, 1993). As they get motivated to give meaning to their lives, they start to search for identities that match with their values and worldview. Taken all these into consideration, the influence of friends as a social agent increases in emerging adulthood and this makes friends better contributors of identity development in emerging adults' lives than parents.

5.2. Demographic Variables as Predictors of Identity Statuses

First, identity moratorium was significantly negatively predicted by age. As students grow older, identity moratorium scores decreased. The reason for it could be that they explore possible identities at the early periods of university and make commitments until the end of graduation. However, the present study did not measure the process of identity formation. Therefore, this conclusion needs further examination.

Second, participant's year of university education negatively predicted identity foreclosure and identity diffusion. The more years one spends in university education predicted less likelihood that one had identity foreclosure. Chickering and Reisser (1993) advocated that the changeful and unpredictable features of the college education elicit the need for autonomy, competence and relatedness, so students come out more to explore and thrive out of alternatives. Therefore, identity statuses of foreclosure and diffusion tend to be abandoned.

Third, identity diffusion was predicted significantly by age and gender. This means that males are significantly more likely to have identity diffusion as compared to females. The gender difference might correspond to different parenting practices for boys and girls and gender socialization. Traditionally speaking, males

are expected to be the breadwinner of the family in Turkish culture. This might escalate the stress of establishing a career and one's own family more for males than females and the expectations make scare them out. A study with college students linked fear of success with more diffusion in men (Orlofsky, 1978). So, the anxiety stemming from expectation to provide for a house and fear of failure could lead males to stay in a diffused identity. Similar gender differences were found by studies examining interpersonal and ideological domains of identity (e.g., Graf, Mulis, & Mulis, 2008; Solomontos-Kountori & Hurry, 2008).

5.3. Contributions

To the author's best knowledge, there is not a study in the literature to examine the effects of basic psychological needs satisfaction on identity statuses in parental and peer context. Studying this link in multiple social contexts was the contribution of the current study to the literature.

5.4. Limitations and Future Directions

The present study is not without limitations. Firstly, although the sample consisted of university students from different majors, a big part of the sample (43%) were students of psychology. This might interfere with the generalizability of the study findings. Future studies should have a more diverse sample in order to obtain more generalizable results.

Secondly, data were collected through self-report questionnaires. Although the study was anonymous, self-reports could be biased due to social desirability which compromises the accuracy of the gathered information. Along with an identity formation questionnaire, Marcia's Identity Statuses Interview (Marcia,

1966) might be administered to benefit from additional information from open ended questions as well as observations.

Furthermore, the present study was interested in the examination of identity statuses that emerging adults have at the present time. Thus, the link between basic needs and identity was studied here and now which yields an image of the identity statuses rather than uncovering the process of identity development. Nonetheless, developmental psychology gives great importance to change over time. A longitudinal study would explain the individual processes of acquiring identities and changes along the way as students grow.

Future research also should investigate the transactional associations between basic psychological needs satisfaction and identity. To illustrate, besides examining the effects of basic needs on youth identity, other studies might also look into the influence of identity statuses on basic needs satisfaction to understand the link thoroughly.

Moreover, gratification of basic needs with three important others (i.e. mother, father, best friend) were included in the study. Studies suggested that romantic partners are very important figures in emerging adulthood (Fraley & Davis, 1997) and related with identity development (McNamara-Barry, Madsen, Nelson, Carroll, & Badger, 2009). Future studies could include romantic relationship as another social context to examine its relative contribution.

APPENDIX A

Need Satisfaction Scale

Aşağıdaki ifadelerin anne ve babanızla olan ilişkinizde sizin hislerinizi ne kadar doğru ifade ettiğini verilen 5'li ölçeğe göre değerlendiriniz.

1 Tamamen yanlış 2 Kısmen Yanlış 3 Biraz doğru 4 Oldukça doğru 5 Tamamen doğru

	Annemle birlikte iken	Babamla birlikte iken	En yakın arkadaşım ile birlikte iken
1. kendim gibi olmak konusunda rahat hissedirim	(1) (2) (3) (4) (5)	(1) (2) (3) (4) (5)	(1) (2) (3) (4) (5)
2. kendimi yetkin/yeterli bir kişi gibi hissedirim	(1) (2) (3) (4) (5)	(1) (2) (3) (4) (5)	(1) (2) (3) (4) (5)
3. sevdiğimi ve kullandığımı hissedirim	(1) (2) (3) (4) (5)	(1) (2) (3) (4) (5)	(1) (2) (3) (4) (5)
4. kendimi genellikle yetersiz ve beceriksiz hissedirim	(1) (2) (3) (4) (5)	(1) (2) (3) (4) (5)	(1) (2) (3) (4) (5)
5. söz hakkım vardır ve fikirlerimi ifade edebilirim	(1) (2) (3) (4) (5)	(1) (2) (3) (4) (5)	(1) (2) (3) (4) (5)
6. aramızda büyük bir mesafe olduğunu hissedirim	(1) (2) (3) (4) (5)	(1) (2) (3) (4) (5)	(1) (2) (3) (4) (5)
7. kendimi oldukça yetenekli ve etkin hissedirim	(1) (2) (3) (4) (5)	(1) (2) (3) (4) (5)	(1) (2) (3) (4) (5)
8. yakınlık ve içtenlik hissedirim	(1) (2) (3) (4) (5)	(1) (2) (3) (4) (5)	(1) (2) (3) (4) (5)
9. nasıl biri olmam/nasıl davranmam gerektiği konusunda kontrol edildiğimi ve baskı altında olduğumu hissedirim	(1) (2) (3) (4) (5)	(1) (2) (3) (4) (5)	(1) (2) (3) (4) (5)

APPENDIX B

Extended Version of the Objective Measure of Ego Identity Status (EOMEIS)

Aşağıdaki her maddeyi dikkatle okuyunuz ve kendi duygularınızı ve düşüncelerinizi en iyi şekilde yansıtan seçeneği işaretleyiniz. Eğer bir cümle birden fazla bölümü varsa, cevabınızı lütfen cümlelerin tümüne göre veriniz.	Kesinlikle Katılıyorum	Çoğunlukla Katılıyorum	Bazen Katılıyorum	Bazen Katılmıyorum	Çoğunlukla Katılmıyorum	Kesinlikle Katılmıyorum
1. Benim için hangi mesleğin uygun olduğu hakkında bir fikrim yok. Bulacağım herhangi bir işte çalışırım.	1	2	3	4	5	6
2. Din konusunda bana hitap eden bir şey bulmuş değilim ve araştırma gereği de hissetmiyorum.	1	2	3	4	5	6
3. Erkeklerin ve kadınların rolleri hakkında düşüncelerim, anne ve babaminkilerle aynıdır. Onlar için geçerli olan benim için de geçerlidir.	1	2	3	4	5	6
4. Bana hitap eden tek bir yaşam biçimi yok ve bu konuda pek fazla düşünmüyorum.	1	2	3	4	5	6
5. Çok çeşitli insan var. Ben hala bana uygun arkadaşları bulabilmek için çeşitli yollar arıyorum.	1	2	3	4	5	6
6. Şimdiye kadar boş zamanlarımı dolduracak belirli bir faaliyet aramış değilim ancak bazen diğerlerine uyup bir şeylerle uğraştığım olur.	1	2	3	4	5	6
7. Nasıl flört etmeli konusunu şimdiye kadar pek düşünmedim. Zaten flört edip etmemek konusu beni pek fazla ilgilendirmiyor.	1	2	3	4	5	6
8. Politik olarak neyi desteklediğimi ve neye inandığımı bilmenin önemli olduğunu düşünüp, bana uygun bir görüş geliştirmeye çalıştım.	1	2	3	4	5	6
9. Bir birey olarak ne kadar yetenekli olduğuma ve benim için hangi işlerin uygun olacağına hala karar vermeye çalışıyorum.	1	2	3	4	5	6
10. Din konusu beni pek düşündürmüyor ama rahatsız da etmiyor.	1	2	3	4	5	6
11. Evlilikte sorumlulukları paylaşmanın	1	2	3	4	5	6

birçok yolu var, benim için hangisinin uygun olacağına hala karar vermeye çalışıyorum.						
12. Hayatımın nasıl olması gerektiği hakkında akla yatkın bir bakış açısı var ama henüz karar vermeye çalışıyorum.	1	2	3	4	5	6
13. Arkadaşlık etmek için birçok neden vardır ama ben yakın arkadaşlarımı kendi karar verdiğim belirli bazı değerleri ve benzerlikleri temel alarak seçiyorum.	1	2	3	4	5	6
14. Henüz beni çok bağlayan bir boş zaman uğraşı olmamasına rağmen, değişik uğraşlar deneyerek gerçekten ilgilendiğim bir tanesini arıyorum.	1	2	3	4	5	6
15. Geçmiş deneyimlere dayanarak şimdi istediğim flört tarzını seçmiş bulunuyorum.	1	2	3	4	5	6
16. Politika hakkında pek düşünmüş değilim, beni fazla ilgilendirmiyor.	1	2	3	4	5	6
17. Meslek seçiminde ailemin benim için planladığı meslek ilk sırayı almıştır.	1	2	3	4	5	6
18. Her kişinin dini inancı kendine özgüdür. Bu konuyu tekrar tekrar düşündüm ve neye inanabileceğimi biliyorum.	1	2	3	4	5	6
19. Erkek ve kadınların evlilikteki rollerini ciddi bir şekilde düşünmüş değilim, bu konu beni pek ilgilendirmiyor.	1	2	3	4	5	6
20. Uzun süre düşündükten sonra benim için neyin ideal bir yaşam biçimi olduğu hakkında kişisel görüşümü geliştirdim ve bu görüşü kimsenin değiştirebileceğini sanmıyorum.	1	2	3	4	5	6
21. Arkadaşlarımı nasıl seçeceğim konusunda benim için en iyi olanı annem ve babam bilir.	1	2	3	4	5	6
22. Birçok şey arasından düzenli olarak yapabileceğim bir veya birkaç boş zaman uğraşısı seçtim ve bu seçimlerimden memnunum.	1	2	3	4	5	6
23. Flört etme hakkında fazla düşünmüyorum. Olayları akışına bırakıyorum.	1	2	3	4	5	6
24. Politikaya gelince, sanırım bu konuda anne ve babama benziyorum. Oy verme ve benzeri konularda onların yaptıklarını	1	2	3	4	5	6

yapıyorum.						
25. Bana en uygun işi bulmak beni pek ilgilendirmiyor. Herhangi bir iş olabilir. Yani ne bulursam ona takılıp giderim.	1	2	3	4	5	6
26. Benim için dinin ne anlam ifade ettiği konusunda tereddütlüyüm. Bu konuda bir karara varmış olmayı isterdim ama henüz arayışım bitmiş değil.	1	2	3	4	5	6
27. Erkeklerin ve kadınların rolleri hakkındaki düşüncelerim doğrudan annem, babam ve ailemden geliyor. Daha fazlasını araştırmaya gerek duymadım.	1	2	3	4	5	6
28. Benim için ideal yaşam biçiminin ne olacağı annem ve babam tarafından öğretilmiştir ve ben onların bana öğrettiklerini sorgulama gereksinimi hiç duymuyorum.	1	2	3	4	5	6
29. Gerçekten yakın arkadaşım yok, şu anda da böyle birini aradığımı zannetmiyorum.	1	2	3	4	5	6
30. Bazen boş zaman uğraşlarına katılırım ama düzenli bir şekilde yapılacak belirli bir etkinlik aramak için pek gereksinim hissetmiyorum.	1	2	3	4	5	6
31. Değişik tip flört ilişkilerini denedim. Benim için neyin en iyi olduğuna henüz karar vermiş değilim.	1	2	3	4	5	6
32. Politik bir görüş getirmek için çeşitli partiler ve düşünceleri öğrenmeye çalışıyorum ancak henüz kararsızım.	1	2	3	4	5	6
33. Kafamda oluşması bir hayli zamanımı aldı ama şimdi bir meslek olarak neyi istediğimi gerçekten biliyorum.	1	2	3	4	5	6
34. Şu anda din konusu kafamı karıştırıyor. Neyin doğru neyin yanlış olduğu hakkındaki görüşlerimi değiştirip duruyorum.	1	2	3	4	5	6
35. Erkeklerin ve kadınların evlilikteki rolleri hakkında bir müddet düşündüm ve benim için neyin en iyi olacağına karar verdim.	1	2	3	4	5	6
36. Yaşam hakkında kabul edilebilir bir bakış açısı bulmak için başkalarıyla birçok fikir alışverişine giriyorum ve biraz da kendimi tanımaya çalışıyorum.	1	2	3	4	5	6

37. Ben sadece anne ve babamın onaylayacağı arkadaşlar seçerim.	1	2	3	4	5	6
38. Her zaman anne ve babamın yaptığı boş zaman uğraşlarının aynılarını yapmaktan hoşlanmış ve hiçbir zaman başka şeyler yapmayı ciddi olarak düşünmemişimdir.	1	2	3	4	5	6
39. Sadece anne ve babamın flört etmemi beklediği tipte kişilerle çıkarım.	1	2	3	4	5	6
40. Politik inançlarımı baştan sona düşündüm ve görüyorum ki, anne ve babamın inandıklarının bazı yönlerine katılıyor bazı yönlerine ise katılmıyorum.	1	2	3	4	5	6
41. Anne ve babam uzun bir süre önce meslek olarak neyi seçmem gerektiğine karar verdiler ve ben onların planlarını takip ediyorum.	1	2	3	4	5	6
42. Dini inançla ilgili kendime ciddi sorular sorduğum bir dönemim oldu ama bir birey olarak neye inandığımı biliyorum.	1	2	3	4	5	6
43. Bugünlerde eşlerin evlilikteki rolleri hakkında düşünüyorum ve bu konuda bir karar vermeye çalışıyorum.	1	2	3	4	5	6
44. Anne ve babamın yaşam hakkındaki görüşleri benim için yeterlidir. Başka bir şeye ihtiyaç duymuyorum.	1	2	3	4	5	6
45. Birçok değişik arkadaşlıklar denedim, artık şimdi bir arkadaşta neler aradığımı biliyorum.	1	2	3	4	5	6
46. Birçok değişik boş zaman uğraşlarını denedikten sonra, kendi başıma veya arkadaşlarla birlikte yapmaktan gerçekten hoşlandığım bir veya birkaç uğraş buldum.	1	2	3	4	5	6
47. Flört hakkındaki tercihlerim halen gelişme sürecinde henüz tamamen karar vermiş değilim.	1	2	3	4	5	6
48. Politik inançlarımdan emin değilim, aslında neye inanabileceğimi belirlemeye çalışıyorum.	1	2	3	4	5	6
49. Karar vermem uzun bir süre aldı ama şimdi bir meslek için hangi yönde hareket edeceğimi kesinlikle biliyorum.	1	2	3	4	5	6
50. Anne ve babamın yaptığı dini vecibeleri ben de aynen yapıyorum. Nedenini hiç sorgulamadım.	1	2	3	4	5	6
51. Evli çiftlerin aile sorumluluklarını	1	2	3	4	5	6

paylaşabilecekleri pek çok yol vardır. Ben bunların üzerinde epeyce düşündüm ve şimdi kendim için ne istediğimi kesinlikle biliyorum.						
52. Yaşamdan genelde hoşlanırım ve belirli bir yaşam görüşüne sahip olmak gibi bir çabam yoktur.	1	2	3	4	5	6
53. Hiç yakın arkadaşım yok. Sadece değişik gruplara takılıp, dolaşıyorum.	1	2	3	4	5	6
54. Uzun bir süre devam etmekten hoşlanacağım bir veya birkaç boş zaman uğraşı bulabilme umuduyla çeşitli uğraşlar deniyorum.	1	2	3	4	5	6
55. Değişik tipte kişilerle flört ettim ve şimdi flört hakkında kendi 'kurallarımın' ne olduğu ve kimle flört edeceğimi kesinlikle biliyorum.	1	2	3	4	5	6
56. Belirli bir yönde tercih yapabilecek kadar politika ile ilgilenmiş değilim.	1	2	3	4	5	6
57. Seçebilecek çok değişik meslekler var. Meslek olarak ne yapacağıma karar vermeye çalışıyorum.	1	2	3	4	5	6
58. Dinimi asla sorgulamadım. Şayet anne ve babam için doğru olan o ise, benim içinde doğru olan odur.	1	2	3	4	5	6
59. Erkeklerin ve kadınların rolleri hakkındaki fikirler öyle çeşitli gözüküyor ki bu konuda fazla düşünmüyorum.	1	2	3	4	5	6
60. Kendi kendime epeyce inceledikten sonra, yaşam biçiminin ne olması gerektiği hakkında kesin bir görüş edindim.	1	2	3	4	5	6
61. Benim için hangi arkadaşlığın en iyi olacağını gerçekten bilmiyorum. Arkadaşlığın benim için tam olarak ne anlamı olduğunu belirlemeye çalışıyorum.	1	2	3	4	5	6
62. Boş zaman uğraşlarıyla ilgili tüm tercihlerimi anne ve babamdan öğrendim ve başka bir şey denemedim.	1	2	3	4	5	6
63. Ben sadece anne ve babamın onaylayacağı kişilerle flört ederim.	1	2	3	4	5	6
64. Anne ve babamın kürtaj ve ölümcül hastaların kendi rızalarıyla öldürülmeleri gibi konularda her zaman kendi politik ve ahlaki inançları olmuştur ve ben her zaman onların görüşlerini benimsemişimdir.	1	2	3	4	5	6

APPENDIX C**Demographics Questionnaire**

1. Yaşınızı yazınız: ____

2. Cinsiyetinizi yazınız:

- i. Erkek
- ii. Kadın
- iii. Diğer

3a. Babanızın eğitim durumu aşağıdakilerden hangisine uygundur?

- i. Üniversite yada yüksek okul__
- ii. Teknik/Mesleki Okul__
- iii. Ortaokul yada lise__
- iv. İlkokul__
- v. Eğitim almadı__
- vi. Bilmiyorum__

3b. Annenizin aldığı en yüksek eğitim seviyesi nedir?

- i. Üniversite yada yüksek okul__
- ii. Teknik/Mesleki Okul__
- iii. Ortaokul yada lise__
- iv. İlkokul__
- v. Eğitim almadı__
- vi. Bilmiyorum__

4. Hangi alanda öğrenim görüyorsunuz? _____

5. Hangi düzeyde eğitim görüyorsunuz?

- i. Lise ve dengi okul
- ii. Üniversite
- iii. Yüksek Lisans
- iv. Diğer

6. Kaçınıcı sınıftasınız? _____

7. Aylık olarak evinize giren toplam gelir miktarı nedir? _____

REFERENCES

- Adams, G. R., Bennion, L., & Huh, K. (1987). *Objective measure of ego identity status: A reference manual*. Unpublished manuscript, Utah State University, Logan.
- Adams, G. R., Munro, B., Doherty-Poirer, M., Munro, G., Petersen, A. R. & Edwards, J. (2001). Diffuse-Avoidance, Normative, and Informational Identity Styles: Using Identity Theory to Predict Maladjustment. *An International Journal of Theory and Research*, 4, 307-320.
- Adams, G. R., Shea, J., & Fitch, S. A. (1979). Toward the development of an objective assessment of ego-identity status. *Journal of Youth and Adolescence*, 8, 223-237.
- Arnett, J. J. (1998). Learning to stand alone: The contemporary American transition to adulthood in cultural and historical context. *Human Development*, 41, 295-315.
- Arnett, J. J., (2000). Emerging adulthood: A theory of development from the late teens through the twenties. *American Psychologist*, 55, 469-480.
- Arnett, J. J. (2004). *Emerging adulthood: The winding road from the late teens through the twenties*. New York: Oxford University Press.
- Arnett, J. J. (2005). The developmental context of substance use in emerging adulthood. *Journal of Drug Issues*, 35, 235–254.
<http://dx.doi.org/10.1177/002204260503500202>
- Atak, H. (2005). *Beliren yetişkinlik: Yeni bir yaşam döneminin Türkiye’de*

incelenmesi. Yayınlanmamış Yüksek Lisans Tezi. Ankara Üniversitesi, Eğitim Bilimleri Enstitüsü, Ankara.

Atak, H. & Çok, F. (2008). The Turkish version of inventory of the dimensions of emerging adulthood (The IDEA), *International Journal of Humanities and Social Sciences*, 3, 148-154.

Balistreri, E., Busch-Rossnagel, N. A., & Geisinger, K. F. (1995). Development and preliminary validation of the Ego Identity Process Questionnaire. *Journal of Adolescence*, 18, 179–192.

Bartholomew, K. J., Ntoumanis, N., Ryan, R. M., Bosch, J. A., & Thøgersen-Ntoumani, C. (2011). Self-Determination Theory and Diminished Functioning: The Role of Interpersonal Control and Psychological Need Thwarting. *Personality and Social Psychology Bulletin*, 37, 1459-1473.

Barry, C. M., Madsen, S. D., & DeGrace, A. (2015). Growing up with a little help from their friends. In J. J. Arnett (Eds), *Handbook on emerging adulthood* (pp. 464-480). New York, NY: Oxford University Press.

Baumeister, R. F., & Leary, M. R. (1995). The need to belong: Desire for interpersonal attachments as a fundamental human motivation. *Psychological Bulletin*, 117, 497–529.

Bennion, L. D., & Adams, G. R. (1986). A revision of the extended version of Objective Measure of Ego Identity Status: An identity instrument for use with late adolescents. *Journal of Adolescent Research*, 1, 183-198.

Bergh, S., & Erling, A. (2005). Adolescent identity formation: a Swedish study of identity status using the EOM-EIS-II. *Adolescence*, 40(158), 377-396.

- Berzonsky, M. D. (1989). Identity style: Conceptualization and measurement. *Journal of Adolescent Research, 4*, 268–282.
- Berzonsky, M. D. (2003). Identity style and well-being: does commitment matter? *Identity: An International Journal of Theory and Research, 3*, 131-142.
- Berzonsky, M. D., & Ferrari, J. R. (1996). Identity style and decisional strategies. *Personality and Individual Differences, 20*, 597–606.
- Beyers, W., & Goossens, L. (2008). Dynamics of perceived parenting and identity formation in late adolescence. *Journal of Adolescence, 31*, 165-184.
- Beyers, W., & Luyckx, K. (2016). Ruminative exploration and reconsideration of commitment as risk factors for suboptimal identity development in adolescence and emerging adulthood. *Journal of Adolescence, 47*, 169-178.
- Bosma, H. A., & Jackson, S. (Eds.). (1990). *Coping and self-concept in adolescence*. Berlin: Springer.
- Bugental, D. B., & Goodnow, J. J. (1998). Socialization processes. Handbook of Child Psychology: Vol 3. *Social, Emotional, and Personality Development*, in Damon, W. (Series Ed) & Eisenberg, N. (Vol. Ed.) (5th ed), (pp. 389-462), Wiley, New York.
- Chen, B., Vansteenkiste, M., Beyers, W., Boone, L., Deci, E. L., Van der Kaap-Deeder, J., ... Verstuyf, J. (2015). Basic psychological need satisfaction, need frustration, and need strength across four cultures. *Motivation Emotion, 39*, 216–236. DOI 10.1007/s11031-014-9450-1
- Chickering, A. W., & Reisser, L. (1993). *Education and identity* (2nd ed.). San Francisco: Jossey-Bass.

- Chirkov, V., Ryan, R. M., Kim, Y., & Kaplan, U. (2003). Differentiating autonomy from individualism and independence: A self-determination theory perspective on internalization of cultural orientations and wellbeing. *Journal of Personality and Social Psychology* 84(1), 97–110.
- Collins, W. A., & Laursen, B. (1992). Conflict and relationships during adolescence. In C. U. Shantz & W. W. Hartup (Eds.), *Conflict in child and adolescent development* (pp. 216-241). New York: Cambridge University Press.
- Collins, W. A., & Madsen, S. D. (2006). Personal relationships in adolescence and early adulthood. In A. L. Vangelisti & D. Perlman (Eds.), *The Cambridge handbook of personal relationships* (pp. 191–209). New York: Cambridge University Press.
- Côté, J. E. (2000). *Arrested adulthood: The changing nature of maturity and identity*. New York, NY: New York University Press.
- Côté, J. E. (2006). Emerging adulthood as an institutionalized moratorium: Risks and benefits to identity formation. In J. J. Arnett & J. L. Tanner (Eds.), *Emerging adults in America: Coming of age in the 21st century* (pp. 85–116). Washington, DC: American Psychological Association.
doi:10.1037/11381-004
- Côté, J. E., & Allahaar, A. L. (1994). *Generation on hold: Coming of age in the late twentieth century*. Toronto, Canada: Stoddart.
- Côté, J. E., & Levine, C. (1983). Marcia and Erikson: The relationships among ego

identity status, neuroticism, dogmatism, and purpose in life. *Journal of Youth and Adolescence*, 12, 43-53.

Cotterell, J. (1996). *Social Networks and Social Influences in Adolescence*. London: Routledge.

Crocetti, E., Cherubini, E., & Palmonari, A. (2011). Social support and identity styles in adolescence. *Psicologia Clinica Dello Sviluppo*, 15, 353–377.

Crocetti, E., Rubini, M., Luyckx, K., & Meeus, W. (2008). Identity formation in early and middle adolescents from various ethnic groups: From three dimensions to five statuses. *Journal of Youth and Adolescence*, 37, 983–996.

Crocetti, E., Rubini, M., & Meeus, W. (2008). Capturing the dynamics of identity formation in various ethnic groups: development and validation of a three-dimensional model. *Journal of Adolescence*, 31(2), 207–222.

Crocetti, E., Schwartz, S., Fermani, A., Klimstra, T., & Meeus, W. (2011). A cross-national study of identity statuses in Dutch and Italian adolescents: Status distributions and correlates. *European Psychologist*, 17, 171-181.
doi:10.1027/1016-9040/a000076.

Deci, E. L., & Ryan, R. M. (1985). *Intrinsic motivation and self-determination in human behavior*. New York: Plenum Press.

Deci, E. L., Ryan, R. M., & Williams, G. C. (1996). Need satisfaction and the self-regulation of learning. *Learning and Individual Differences*, 8, 165-183.

Deci, E. L., & Ryan, R. M. (2000a). The darker and brighter sides of human existence: Basic psychological needs as a unifying concept. *Psychological Inquiry*, 11, 319-338.

Deci, E. L., & Ryan, R. M. (2000b). Self-determination theory: Questionnaires.

Retrieved March 5, 2005, from

<http://www.psych.rochester.edu/SDT/measures/needs.html>

Deci, E. L., Ryan, R. M., Gagne, M., Leone, D. R., Usunov, J., & Kornazheva, B. P.

(2001). Need satisfaction, motivation, and well-being in the work organizations of a former Eastern Bloc country: A cross-cultural study of self-determination. *Personality and Social Psychology Bulletin*, 27, 930–942. doi:10.1177/0146167201278002

Deci, E. L., La Guardia, J. G., Moller, A. C., Scheiner, M. J., & Ryan, R. M. (2006).

On the Benefits of Giving as Well as Receiving Autonomy Support: Mutuality in Close Friendships. *Society of Personality and Social Psychology*, 32, 313-327. DOI: 10.1177/0146167205282148

Dellas, M., & Jernigan, L. P. (1990). Affective personality characteristics associated with undergraduate ego identity formation. *Journal of Adolescent Research*, 5, 306-324.

Demir, M., & Davidson, I. (2013). Toward a Better Understanding of the Relationship Between Friendship and Happiness: Perceived Responses to Capitalization Attempts, Feelings of Mattering, and Satisfaction of Basic Psychological Needs in Same-Sex Best Friendships as Predictors of Happiness. *Journal of Happiness Studies*, 14, 525-550. DOI10.1007/s10902-012-9341-7

Dietrich, J., Kracke, B., & Nurmi, J. (2011). Parents' role in adolescents' decision on

a college major: A weekly diary study. *Journal of Vocational Behavior*, 79, 134-144. doi:10.1016/j.jvb.2010.12.003

Dost-Gözkın, A. (2016). Ergenlerin-ebeveynleri ile bilgi paylaşma davranışı: Bireye ve aileye ilişkin belirleyici faktörler ve olumlu gelişim. TÜBİTAK proje #115K324, yayınlanmamış pilot çalışma.

Dykstra, P. A., & Poortman, A. R. (2010). Economic resources and remaining single: Trends over time. *European Sociological Review*, 26, 277-290.

Eccles, J. S., & Roeser, R. W. (2009). Schools, academic motivation, and stage-environment fit. In R. M. Lerner & L. Steinberg (Eds.), *Handbook of adolescent psychology* (3rd ed., pp. 404–434). Hoboken, NJ: Wiley.

Erikson, E. (1956). The problem of ego identity. *Journal of the American Psychoanalytic Association*, 4, 56-121.

Erikson, E. H. (1968). *Identity: Youth and crisis*. New York, NY: Norton.

Fadjukoff, P., Pulkkinen, L., & Kokko, K. (2005). Identity processes in adulthood: diverging domains. *Identity: An International Journal of Theory and Research*, 5, 1–20.

Faul, F., Erdfelder, E., Lang, A.-G., & Buchner, A. (2007). G*Power 3: A flexible statistical power analysis program for the social, behavioral, and biomedical sciences. *Behavior Research Methods*, 39, 175-191.

Faye, C., & Sharpe, D. (2008). Academic Motivation in University: The Role of Basic Psychological Needs and Identity Formation. *Canadian Journal of Behavioral Science*, 40, 189-199.

Filak, V., & Sheldon, K. (2003). Student psychological need satisfaction and college

- teacher-course evaluations. *Educational Psychology*, 23, 235-247.
- Fraley, R. C., & Davis, K. E. (1997). Attachment formation and transfer in young adults' close friendships and romantic relationships. *Personal Relationships*, 4, 131-144.
- Field, A. (2009). *Discovering Statistics Using SPSS. Third Edition*. Sage Publication, London.
- Fullinwider-Bush, N., & Jacobvitz, D. B. (1993). The transition to young adulthood: generational boundary dissolution and female identity development. *Family Process*, 32, 87-103.
- Gagne', M., Ryan, R. M., & Bargmann, K. (2003). Autonomy support and need satisfaction in the motivation and well-being of gymnasts. *Journal of Applied Sport Psychology*, 15, 372–390. DOI:10.1080/10413200390238031
- Gamble, W. C., Ramakumar, S., & Diaz, A. (2007). Maternal and parental similarities and differences in parenting: An examination of Mexican-America parents of young children. *Early Childhood Research Quarterly*, 22, 72–88.
- Ginsburg, G. S., & Bronstein, P. (1993). Family Factors Related to Children's Intrinsic/Extrinsic Motivational Orientation and Academic Performance. *Child Development*, 64(5), 1461-1474.
- Goossens, L. (2001). Global versus domain-specific statuses in identity research: A comparison of two self-report measures. *Journal of Adolescence*, 24, 681–699.
- Graf, S. C., Mullis, R. L., & Mullis, A. K. (2008). Identity formation of United

- States American and Asian Indian adolescents. *Adolescence*, 43, 57-69.
- Grolnick, W. S., Deci, E. L., & Ryan, R. M. (1997). Internalization within the family: The selfdetermination theory perspective. In J. E. Grusec & L. Kuczynski (Eds.), *Parenting and children's internalization of values: A handbook of contemporary theory* (pp. 135-161). New York: Wiley.
- Grolnick, W. S., & Ryan, R. M. (1989). Parent styles associated with children's self-regulation and competence in schools. *Journal of Educational Psychology*, 81, 143-154.
- Hadden, B. W., Overup, C. S., & Knee, C. R. (2014). Removing the Ego: Need Fulfillment, Self-Image Goal, and Self-Presentation. *Self and Identity*, 13, 274-293.
- Harter, S. (1978). Effectance motivation reconsidered: Toward a developmental model. *Human Development*, 21, 34-64.
- Hatano, K., Sugimura, K., & Crocetti, E. (2016). Looking at the dark and bright sides of identity formation: New insights from adolescents and emerging adults in Japan. *Journal of Adolescence*, 47, 156-168.
- Hosley, C., & Montemayor, R. (1997). Fathers and adolescents. In M. Lamb (Ed.), *The role of the father in child development* (pp. 23-45). New York: Wiley.
- Johnston, M. M., & Finney, S. J. (2010). Measuring basic needs satisfaction: Evaluating previous research and conducting new psychometric evaluations of the Basic Needs Satisfaction in General Scale. *Contemporary Educational Psychology*, 35, 280-296.
- Kağıtçıbaşı, Ç. (2007). *Family, self, and human development across cultures:*

Theory and applications. Mahwah, NJ: Lawrence Erlbaum Associates.

Kalakovski, V., & Nurmi, J. E. (1998). Identity and educational transitions: Age differences in adolescent exploration and commitment related to education, occupation, and family. *Journal of Research on Adolescence*, 8(1), 29-47.

Kasser, T., & Ryan, R. M. (1996). Further Examining the American Dream: Differential Correlates of Intrinsic and Extrinsic Goal. *Personality and Social Psychology Bulletin* 22(3), 280-287. DOI10.1177/0146167296223006

Kasser, T., Ryan, R. M., Zax, M., & Sameroff, A. J. (1995). The relations of maternal and social environments to late adolescents' materialistic and prosocial values. *Developmental Psychology*, 31, 907-914.

Kocayörük, E. (2012). Öz-Belirleme Kuramı Açısından Ergenlerin Anne Baba Algısı ile Duyuşsal İyi Oluşları Arasındaki İlişki. *Türk Psikolojik Danışma ve Rehberlik Dergisi* 4(37), 24-37.

Kroger, J. & Marcia, E. M. (2011). The Identity Statuses: Origins, Meanings, and Interpretations. In Schwartz, S. J., Luyckx, K., & Vignoles, V. L. (Eds), *Handbook of identity theory and research* (pp. 31-53). New York, NY: Springer.

Kumru, A., & Thompson, R. A. (2003). Ego Identity Status and Self-Monitoring Behavior in Adolescents. *Journal of Adolescent Research*, 18(5), 481-495. DOI: 10.1177/0743558403255066

La Greca, A. M., & Harrison, H. M. (2005). Adolescent peer relations, friendships, and romantic relationships: Do they predict social anxiety and depression? *Journal of Clinical Child and Adolescent Psychology*, 34, 49-61.

- La Guardia, J. G. (2009). Developing Who I Am: A Self-Determination Theory Approach to the Establishment of Healthy Identities. *Educational Psychologist, 44*, 90-104.
- La Guardia, J. G. , Ryan, R. M., Couchman, C. E., & Deci, E. L. (2000). Within-Person Variation in Security of Attachment: A Self-Determination Theory Perspective on Attachment, Need Fulfillment, and Well-Being. *Journal of Personality and Social Psychology, 79*(3), 367-384.
- La Guardia, J. G., & Ryan, R. M. (2002). What adolescents need: A self-determination theory perspective on development within families, school and society. In F. Pajares & T. Urdan (Eds.), *Academic motivation of adolescents*. Greenwich CT: IAP.
- Larson, R., & Richards, M. H. (1991). Daily companionship in late childhood and early adolescence: changing developmental contexts. *Child Development, 62*(2), 284-300.
- Larson, R. W., Richards, M. H., Moneta, G., Holmbeck, G., & Duckett, E. (1996). Changes in adolescents' daily interactions with their families from ages 10 to 18: disengagement and transformation. *Developmental Psychology, 32*, 744–754.
- Laursen, B., & Bukowski, W. M. (1997). A developmental guide to the organization of close relationships. *International Journal of Behavioral Development, 21*, 747–770.
- Leveresen, I., Danielsen, A. G., Birkeland, M. S., & Samdal, O. (2012). Basic

- Psychological Need Satisfaction in Leisure Activities and Adolescents' Life Satisfaction. *Journal of Youth and Adolescence*, 41, 1588-1599.
- Lewis, M., Feiring, C., & Weinraub, M. (1981). The father as a member of the child's social network. In M. E. Lamb (Ed.), *The role of the father in child development* (pp. 259–294). New York: Wiley.
- Luyckx, K., Goossens, L., & Soenens, B. (2006). A developmental contextual perspective on identity construction in emerging adulthood: Change dynamics in commitment formation and commitment evaluation. *Developmental Psychology*, 42, 366–380.
- Luyckx, K., Goossens, L., Soenens, B., & Beyers, W. (2006). Unpacking commitment and exploration: Validation of an integrative model of adolescent identity formation. *Journal of Adolescence*, 29, 361–378.
- Luyckx, K., Vansteenkiste, M., Goossens, L., & Duriez, B. (2009). Basic Need Satisfaction and Identity Formation: Bridging Self-Determination Theory and Process-Oriented Identity Research. *Journal of Counseling Psychology*, 56, 276-288.
- Marcia, J. E. (1966). Development and Validation of Ego-Identity Status. *Journal of Personality and Social Psychology*, 3(5), 551-558.
- Marcia, J. E. (1976). Identity six years after: A follow-up study. *Journal of Youth and Adolescence*, 5, 145-160.
- Marcia, J. E. (1980). Identity in adolescence. In J. Adelson (Ed.), *Handbook of adolescent psychology* (pp. 159–187). New York: Wiley.
- Marcia, J. E. (1993). The status of the statuses: Research review. In J. E. Marcia, A.

- S. Waterman, D. R. Matteson, S. L. Archer, & J. L. Orlofsky, (Eds.), *Ego identity: A handbook for psychosocial research* (pp. 22–41). New York: Springer-Verlag.
- Marcia, J. E. (2002) Adolescence, Identity, and the Bernardone Family, *Identity*, 2(3), 199-209, DOI: 10.1207/S1532706XID0203_01
- Matheis, S., & Adams, G. R. (2004). Family climate and identity style during late adolescence. *Identity: An International Journal of Theory and Research*, 4, 77–95.
- McNamara-Barry, C., Madsen, S. D., Nelson, L. J., Carroll, J. S., & Badger, S. (2009). Friendship and Romantic Relationship Qualities in Emerging Adulthood: Differential Associations with Identity Development and Achieved Adulthood Criteria. *Journal of Adult Development*, 16, 209-222. DOI 10.1007/s10804-009-9067-x
- Meeus, W. (1996). Studies on identity development in adolescence: An overview of research and some new data. *Journal of Youth and Adolescence*, 25, 569–598.
- Meeus, W., Iedema, J., Helsen, M., & Vollebergh, W. (1999). Patterns of adolescent identity development: Review of literature and longitudinal analysis. *Developmental Review*, 19, 419–461.
- Meeus, W., van de Schoot, R., Keijsers, L., Schwartz, S. J., & Branje, S. (2010). On the progression and stability of adolescent identity formation. A five-wave longitudinal study in early-to-middle and middle-to-late adolescence. *Child Development*, 81, 1565–1581.

- Meilman, P. W. (1979). Cross-Sectional Age Change in Ego Identity Status During Adolescence. *Developmental Psychology, 15*(2), 230-231.
- Miklikowska, M., Duriez, B., & Soenens, B. (2011). Family roots of empathy-related characteristics: The role of perceived maternal and paternal need support in adolescence. *Developmental Psychology, 47*, 1342–1352.
doi:10.1037/a0024726
- Milyavskaya, M., Gingras, I., Mageau, G. A., Koestner, R., Gagnon, H., Fang, J., & Boiche, J. (2009). Balance Across Contexts: Importance of Balanced Need Satisfaction Across Various Life Domains. *Personality and Social Psychology Bulletin, 35*, 1031-1045.
- Milyavskaya, M., & Koestner, R. (2011). Psychological needs, motivation, and well-being: A test of self-determination theory across multiple domains. *Personality and Individual Differences, 50*, 387-391.
- Miner, M., Dowson, M., & Malone, K. (2014). Attachment to God, Psychological Need Satisfaction, and Psychological Well-Being Among Christians. *Journal of Psychology and Theology, 42*, 326-342.
- Morsünbül, Ü. (2013). Are they emerging adults or emerging adults who are university students? An Investigation through Risk Taking and Identity Development. *Elementary Education Online, 12*, 873-885.
- Nawaz, S. (2011). The Relationship of Parental and Peer attachment bonds with the Identity Development during adolescence. *Journal of Social Sciences, 5*(1), 104-119.
- Ng, J. Y. Y., Ntoumanis, N., Thøgersen-Ntoumani, C., Stott, K., & Hindle, L.

- (2013). Predicting Psychological Needs and Well-Being of Individuals Engaging in Weight Management: The Role of Important Others. *Applied Psychology: Health And Well-Being*, 5(3), 291–310.
doi:10.1111/aphw.12011
- Oberle, E., Schonert-Reichl, K. A., & Zumbo, B. D. (2011). Life satisfaction in early adolescence: Personal, neighborhood, school, family, and peer influences. *Journal of Youth and Adolescence*, 40(7), 889–901.
- O'Brien, S. F., & Bierman, K. L. (1988). Conceptions and perceived influence of peer groups: interviews with preadolescents and adolescents. *Child Development*, 59, 1360–1365.
- Orlofsky, J. B. (1978). Identity formation, Achievement, and fear of success in college men and women. *Journal of Youth and Adolescence*, 7(1), 49-62.
- Oskay, G. (1998) Genişletilmiş Objektif Ego Kimlik Statüsü Ölçeğinin (Extended Objective Measure of Measure of Ego Identity Status) Türkçeye Uyarlanması, Geçerlik ve Güvenirlik Çalışmaları, *Psikolojik Danışma ve Rehberlik Dergisi*, 2, 17–24.
- Passmore, N. L., Fogarty, G. J., Bourke, C. J., & Baker-Evans, S. F. (2005). Parental bonding and identity style as correlates of self-esteem among adult adoptees and nonadoptees. *Family Relations*, 54, 523–534.
- Pastorino, E., Dunham, R. M., Kidwell, J., Bacho, R., & Lamborn, S. D. (1997). Domain specific gender comparisons in identity development among college youth: Ideology and relationships. *Adolescence*, 32(127), 559–577.
- Patrick, H., Knee, C. R., Canevello, A., & Lonsbary, C. (2007). The role of need

fulfillment in relationship functioning and well-being: A self-determination theory perspective. *Journal of Personality and Social Psychology*, 92, 434-457.

Pelham, W. E., Gnagy, E. M., Greenslade, K. E., & Milich, R. (1992). Teacher ratings of DSM–III-R symptoms for the disruptive behavior disorders. *Journal of the American Academy of Child & Adolescent Psychiatry*, 32, 210–218.

Philippe, F. L., Koestner, R., Beaulieu-Pelletier, G., & Lecours, S. (2011). The Role of Need Satisfaction as a Distinct and Basic Psychological Component of Autobiographical Memories: A Look at Well-Being. *Journal of Personality*, 79, 905-938.

Roberts, S. G. B., & Dunbar, R. I. M. (2011). The costs of family and friends: An 18-month longitudinal study of relationship maintenance and decay. *Evolution and Human Behavior*, 32, 186–197.
doi:10.1016/j.evolhumbehav.2010.08.005

Rosenthal, D. A., Gurney, R. M., & Moore, S. M. (1981). From trust on intimacy: A new inventory for examining erikson's stages of psychosocial development. *Journal of Youth and Adolescence*, 10, 525-537.

Ryan, R. M. (1995). Psychological needs and the facilitation of integrative processes. *Journal of Personality*, 63, 397–427.

Ryan, R. M., Connell, J. P., & Deci, E. L. (1985). A motivational analysis of self-

- determination and self-regulation in education. In C. Ames & R. E. Ames (Eds.), *Research on motivation in education: The classroom milieu* (pp. 13-51). New York: Academic Press.
- 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. 3-33). Rochester, NY: The University of Rochester Press.
- Ryan, R. M., & Deci, E. L. (2003). On assimilating identities to the self: A self-determination theory perspective on internalization and integrity within cultures. In M. R. Leary & J. P. Tangney (Eds.), *Handbook on self & identity* (pp. 253-274). New York: The Guilford Press.
- Ryan, R. M., Deci, E. L., Grolnick, W. S., & La Guardia, J. G. (2006). The significance of autonomy and autonomy support in psychological development and psychopathology. In D. Cicchetti & D. Cohen (Eds.) *Developmental Psychopathology: Vol. 1. Theory and Methods* (2nd ed., pp. 795-849). New York: Wiley.
- Ryan, R. M., & Kuczowski, R. (1994). Egocentrism and heteronomy: A study of imaginary audience, self-consciousness, and public individuation in adolescence. *Journal of Personality*, 62, 219-238.
- Ryan, R. M., La Guardia, J. G., Solky-Butzel, J., Kim, Y., & Chirkov, V. (2002).

Emotional reliance across gender, relationships and cultures: The self-determination of dependence. Unpublished manuscript, University of Rochester.

Ryan, R. M., La Guardia, J. G., Solky-Butzel, J., Chirkov, V. I., & Kim, Y. (2005).

On the interpersonal regulation of emotions: Emotional reliance across gender, relationships, and culture. *Personal Relationships, 12*, 146-163.

Schwartz, S. J. (2001). The evolution of Eriksonian and neo-Eriksonian identity theory and research: A review and integration. *Identity: An International Journal of Theory and Research, 1*, 7-58.

Sheldon, K. M., & Niemiec, C. P. (2006). It's not just the amount that counts: Balanced need satisfaction also affects well-being. *Journal of Personality and Social Psychology, 91*, 331-341.

Schwartz, S. J., Co[^]te', J. E., & Arnett, J. J. (2005). Identity and agency in emerging adulthood: Two developmental routes in the individualization process. *Youth & Society, 37*, 201-229.

Schwartz, S. J., Zamboanga, B. L., Luyckx, K., Meca, A., & Ritchie, R. A. (2013). Identity in Emergin Adulthood: Reviewing the Field and Looking Forward. *Emerging Adulthood, 1*(2), 96-113.

Siegal, M. (1987). Are sons and daughters treated more differently by fathers than by mothers? *Developmental Review, 7*, 183-209.

Smits, I., Doumen, S., Luyckx, K., Duriez, B., & Goossens, L. (2011). Identity styles and interpersonal behavior in emerging adulthood: The intervening role of empathy. *Social Development, 20*, 664-684.

- Soenens, B., Berzonsky, M. D., Vansteenkiste, M., Beyers, W., & Goossens, L. (2005). Identity styles and causality orientations: In search of the motivational underpinnings of the identity exploration process. *European Journal of Personality, 19*, 427–442.
- Soenens, B., Duriez, B., & Goossens, L. (2005). Social-psychological profiles of identity styles: Attitudinal and social-cognitive correlates in late adolescence. *Journal of Adolescence, 28*, 107–125.
- Soenens, B., & Vansteenkiste, M. (2010). A theoretical upgrade of the concept of parental psychological control: Proposing new insights on the basis of self-determination theory. *Developmental Review, 30*, 74–99.
doi:10.1016/j.dr.2009.11.001
- Soenens, B., Vansteenkiste, M., Lens, W., Luyckx, K., Goossens, L., Beyers, W., & Ryan, R. M. (2007). Conceptualizing Parental Autonomy Support: Adolescent Perceptions of Promotion of Independence Versus Promotion of Volitional Functioning. *Developmental Psychology, 43*(3), 633-646.
- Solomontos-Kountouri, O. & Hurry, J. (2008). Political, religious and occupational identities in context: placing identity status paradigm in context. *Journal of Adolescence, 31*, 241-258.
- Stolz, H. E., Barber, B. K., & Olsen, J. A. (2005). Toward disentangling fathering and mothering: An assessment of relative importance. *Journal of Marriage and the Family, 67*, 1076–1092.
- Şimşek, Ö. F., & Demir, M. (2014). A Cross-Cultural Investigation into the

Relationships Among Parental Support for Basic Psychological Needs, Sense of Uniqueness, and Happiness. *The Journal of Psychology*, 148(4), 387-411. DOI:10.1080/00223980.2013.805115

Van der Giessen, D., Branje, S., & Meeus, W. (2014). Perceived Autonomy Support From Parents and Best Friends: Longitudinal Associations with Adolescents' Depressive Symptoms. *Social Development*, 23(3), 537-555.

Vansteenkiste, M., Niemiec, C. P., & Soenens, B. (2010). The development of the five mini-theories of self-determination theory: an historical overview, emerging trends, and future directions. In T. C. Urdan, & S. A. Karabenick (Vol. Eds.). *Advances in motivation and achievement: Vol. 16. The decade ahead: Theoretical perspectives on motivation and achievement* (pp. 105e165). Emerald Group Publishing Company.

[http://dx.doi.org/10.1108/S0749-7423\(2010\)000016A007](http://dx.doi.org/10.1108/S0749-7423(2010)000016A007).

Vansteenkiste, M., Nyerinck, B., Niemiec, C. P., Soenens, B., De Witte, H., & Van den Broeck, A. (2007). On the relations among work value orientations, psychological need satisfaction and job outcomes: A self-determination theory approach. *Journal of Occupational and Organizational Psychology*, 80, 251-277.

Vansteenkiste, M., & Ryan, R. M. (2013). On psychological growth and vulnerability: Basic psychological need satisfaction and need frustration as a unifying principle. *Journal of Psychotherapy Integration*, 3, 263–280.

Waterman, A. S. (1993). Developmental perspectives on identity formation: From

- adolescence to adulthood. In: J. E. Marcia, A. S. Waterman, D. R. Matteson, S. L. Archer, & J. L. Orlofsky (Eds.), *Ego identity: A handbook for psychosocial research* (pp. 42–68). New York: Springer-Verlag.
- Waterman, A. S., & Waterman, C. K. (1971). A longitudinal study of changes in ego identity status during the freshman year at college. *Developmental Psychology, 5*, 167-173.
- Waterman, A. S., & Goldman, J. (1976). A longitudinal study of ego identity development at a liberal arts college. *Journal of Youth and Adolescence, 5*, 361-370.
- Waterman, C. K., Buebel, M. E., & Waterman, A. S. (1970). Relationship between resolution of the identity crisis and outcomes of previous psychosocial crises. *Proceeding of the Annual Convention of the American Psychological Association Vol, 5 (Part 1)* (pp.467-468).
- Wei, M. F., Shaffer, P. A., Young, S. K., & Zakalik, R. A. (2005). Adult attachment, shame, depression, and loneliness: The mediation role of basic psychological needs satisfaction. *Journal of Counseling Psychology, 52*, 591–601.
- Wiik, K. A. (2009). ‘You’d better wait!’—Socioeconomic background and timing of first marriage versus first cohabitation. *European Sociological Review, 25*, 139-153.
- Yeung, R., & Leadbeater, B. (2010). Adults make a difference: The protective effects of parent and teacher emotional support on emotional and behavioral problems of peer-victimized adolescents. *Journal of Community Psychology, 38*, 80-98.

Yip, T. Seaton, E. K., & Sellers, R. M. (2006). African American racial identity across the lifespan: Identity status, identity content, and depressive symptoms. *Child Development, 77*(5), 1504-1517.

