Relationship between Educational Outcomes and Mental
Health of Turkish-American Adolescents

by

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Abstract

The purpose of the present study is: (a) to identify the effects of internalizing problems, externalizing problems, and total problems (as measured by the of the Youth Self Report [YSR] and the parent-reported Child Behavior Checklist [CBCL]) on parent-reported students Grade Point Average (GPA) and an academic performance scale; (b) to identify the effects of gender, parental education level (college degree vs graduate school degree), and age groups (11-14 vs 15-18) on internalizing problems, externalizing problems, and a total score (which consists of these two scales plus additional items related to social problems scale and thought problems scale) both types of problems combined on the adolescent-reported survey and parent-reported survey; (c) and to uncover the relationship between parent- and student-reported ratings.

The sample consisted of seventy-five Turkish-American adolescents whose ages ranged from eleven years old to eighteen years old. The YSR survey (Achenbach & Rescorla, 2001) was administered to each test subject, and a parent or guardian received and scored the CBCL (Achenbach & Rescorla, 2001) to report their child's emotional and behavioral problems

The overall results indicated that being an immigrant child was not a risk indicator for psychiatric disorders or poor school performance in this sample. Multiple linear regression results showed that the total YSR score (student report) and total CBCL score (parent report) was significantly predicted with GPA $(\beta = 0.27 \text{ and } \beta = -0.37)$. Based on these results, it appeared that parent scores negatively predicted GPA, so that a lower total score on the emotional and behavioral problems checklist was correlated with higher GPA. In contrast, youth-reported YSR total scores were positively correlated, so more reported

problems were associated with *higher* GPA.

Three paired-samples t-test results suggested that parents and adolescents were not in agreement on the internalizing and externalizing emotional and behavioral problems of the adolescents. The parents reported higher externalizing problems while adolescents reported greater internalizing problems. These differences cancelled each other out in the total score, where the two groups did not differ significantly in total problems. Pearson correlations suggested that there were modest correlations between internalizing YSR and CBCL (r = 0.59), between externalizing YSR and CBCL (r = 0.33), and between total YSR and CBCL (r = 0.59), suggesting some consistency in reporting.

Results from six backward elimination regression analyses suggested that females had more externalizing and total YSR problems than males. The negative value of each age group's coefficient indicated that the second age group (15-18) has lower externalizing and total YSR scores than the first age group (11-14). In addition, the adolescents whose parents had college degrees had more externalizing problems than the adolescents whose parents had graduate school degrees.

Based on the results, suggestions for future research are made. Lack of variability in socioeconomic status limits the generalizability of this study to other large immigrant populations in the United States. Suggestions are also made for parents and education leaders based on the factors affecting educational outcomes and emotional and behavioral problems of Turkish-American adolescents.

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Table of Contents

List of Tables

CHAPTER I

INTRODUCTION

The immigrant student population is the fastest growing student population today in the United States (Capps et al., 2005; Suárez-Orozco & Todorova, 2010). Approximately ten to fifteen percent of all students under the age of eighteen are not natural born citizens, and they have immigrated to America by themselves or with family (U.S. Census Bureau, 2012). That percentage of immigrant students is projected to increase to nearly thirty percent over the next few decades (Passel, 2011), and this growing percentage of immigrant youth has had and will continue to have a very deep influence on the culture of modern education (Munroe-Blum et al.,1989).

Schools are mostly the first places where immigrant or immigrant-origin children integrate into the American society, and this integration comes with the drastic culture changes which will become their new lifestyles (Atkins et al, 2006). Learning a new language, adopting new morals values, and adapting to major social changes are all a part of becoming acclimated to the new environment and education system (Bengi-arslan et al., 1997).

Immigrant adolescents face a diverse range of problems that includes psychological, educational, and cultural issues. Many of these immigrant students experience a rift between their culturally traditional family values and the new values they are being taught at school (Capps et al., 2005; Suárez-Orozco, & Todorova, 2010). When young students begin to favor the Western culture that they are immersed in for most of the day at school, there is often a disconnect between the children and parents, adding to the challenges and difficulties that these students already face (Bengi-arslan et al., 1997). Also, they are often given even greater

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challenges by an education system that is not designed to meet the needs and challenges of a very large immigrant student body because schools are mostly universal and homogenous in dominant western culture (Gibson, 1997).

Besides adapting to a new environment, the addition of the pressure to learn academically makes this cultural transition even more difficult for many students. If schools do not try to meet these academic needs, these challenges may result in stress and eventually may lead to mental health problems in the long term (Bal & Arzubiaga, 2014).

The diagnosis of emotional and behavioral problems (EBP) is one common result of mental health problems and is the fastest increasing mental health diagnosis in the United States (Bal & Arzubiaga, 2014). Hadaway and his colleges (2016) reported that approximately one in five children in the U.S. have the signs or symptoms of mental or behavioral problems. The EBP is used by educators as an umbrella definition to identify problems in adolescents (Currie and Stabile, 2006). EBP is broken into two sub-categories: internalizing disorders and externalizing disorders. Internalizing disorders occur primarily internally within the person and are directed towards oneself, while externalizing disorders are displayed more openly and usually are directed towards another individual. Internalizing problems generally consist of depression, worry, fear, or self-injury; however, externalizing problems consist of aggression, angry outbursts, law-breaking, or hyperactivity (Currie & Stabile, 2006).

Some studies that have investigated the relation between migration and mental health have shown that there is a strong link between psychological disorders and migrant status (Murad et al., 2004; Davies & McKelvey, 1998). Although the immigrant children were born in the host country, they are still exposed to immigration-related symptoms because they are raised by immigrant parents in a different culture.

During adolescence, youth experience a considerable amount of stress since they feel themselves neither to be a child nor an adult; therefore, there is a considerable susceptibility to developing emotional and behavioral problems during this period (Murad et al., 2004). Because immigrant adolescents encounter additional stress associated to the social and cultural differences and acculturation problems, it is likely that immigrant children, especially adolescents, have more emotional and behavioral problems when compared with their nonimmigrant peers. (Davies & McKelvey, 1998; Stevens et al., 2003).

Immigrant students showed a definite tendency, as observed by their teachers, to display more emotional and behavioral issues than their fellow students. (Birman et al., 2008; Crosnoe & Fuligni, 2012; Stevens et al., 2003). Aggressive behavior, rule-breaking, and anger towards others also presented themselves in examined populations of students. Severe stress reactions have been cited as a reason for problematic behaviors exhibited by immigrant children in the schools (Bal and Arzubiga, 2014; Stevens et al., 2003). These types of stress levels create a vicious cycle for these students. Academic and social struggles lead to an increase in external mental health problems, and in turn, external mental health problems cause students to struggle academically (Crul & Vermeulen, 2003; Timmerman, 2003; Veenman, 1996; Worbs, 2003). Immigrant students who are struggling with emotional and behavioral problems have historically experienced negative educational and post-school outcomes (Arzubiaga, Nogueron & Sullivan, 2009).

In the literature which has been investigated, the relationships among mental health and educational outcomes of immigrant adolescents; socioeconomic status, gender, parental education and age groups (11 to 14 vs 15 to 18) were found to be associated with these constructs.

Low socioeconomic status (SES) is one of the most important factors associated with poor mental health in children and adolescents, (Sonego et al., 2013). Ataca and Berry (2002)

concluded based on their study with Turkish-Canadian immigrants that the higher SES group has greater access to resources such as a higher level of education and greater language proficiency, which makes it easier to manage life in a Western setting; however, low SES groups' lifestyles are very similar to those of the first generation of Turkish immigrants to migrate to Europe.

One of the major SES components is parental education. The studies in the existing related literature have shown that there exists a relationship between parental education and child mental health (Davis et al., 2010; Von Rueden et al., 2006). Moreover, it has been identified that the association between parental education and parent-reported child mental health is stronger than the association between income and social class. (Sonego et al., 2013).

Research on the emotional and behavioral disorders of immigrant adolescents indicates that the scores for girls on internalizing stressful emotions tend to be higher than the scores for boys, and are especially high for girls between the ages of twelve to sixteen, while the situation for the externalization of these damaging emotions is reversed for the genders (Ataca, 2006; Bengi-Arslan et al., 1997; Bernstein et al., 1996, Birman et al., 2007). In addition, Achenbach (2001) concluded that adolescents between the ages of fifteen and eighteen have a higher diagnosis rate of EBP than the adolescents who are between eleven and fourteen years old.

Problem Statement

Based on the studies and data that have been collected, immigrant adolescents are much more inclined to have a higher diagnosis rate of EBP and lower academic performance than their citizen counterparts, and this inclination stems from factors such as low SES and low parental education. Because of these confounding variables, truly assessing the mental health of young students who fall into the immigrant category can be an almost impossible task; however, the most common variables of low parental education and low economic

status are generally true for most immigrant students who struggle (Bal & Arzubiga, 2014; Sonego et al., 2013).

Solidly pinning the immigrant status as a valid cause or reason for why immigrant youth struggle seems almost impossible because of the myriad variety of other reasons why these students struggle, so the proper approach would be to select a group of immigrant students whose situation commonly factors out as many of the different variables as possible. Turkish-American students typically come from a higher socio-economic status than other immigrant groups, and the parental education levels among this culture is higher than most others.

The Turkish-American community is a small but rapidly growing immigrant community in the United States (Isik-Ercan, 2010). According to the 2010 census, there are over one hundred thousand people with Turkish ancestry currently living in the United States, and that number may possibly grow over the past five years. (US Census, 2010). The majority of Turkish people in the United States are proficient in the English language and maintain a middle to high socio-economic status (Isik-Ercan, 2010). Also, the median family income among Turkish immigrants in America is about $58,000, and approximately fifty percent of Turkish immigrants who are twenty-five or older have an undergraduate or graduate degree (Isik-Ercan, 2010).

Studying on this group contributes to available research to enlighten how the immigrant status affects the lives of adolescents. Because the effects of SES and parental education are similar and controlled to general standard in most cases, this study is able give a more lucid picture of the negative psychological effects that being an immigrant student can cause an adolescent, even if that young person was born in the host country.

The relationship between psychological wellbeing and educational outcomes in immigrant adolescent is a neglected research area, so only limited literature can be found on

4

this topic (Suarez-Orozco, Rhodes, & Milburn, 2009). In addition, there is no available research on the EBP diagnosis rate and academic performance of Turkish-American adolescents, so the only information to be gathered is from a few Turkish immigrant children living in Europe. The researchers on the psychological status adjustment of Turkish immigrant adolescents in European countries showed that Turkish adolescents showed more internalizing and externalizing problems when compared to their native peers (Bengi-Arslan et al., 1997; Murad et al., 2004).

A hypothesis about Turkish-American adolescents and the emotional and behavioral problems they exhibit based on the studies conducted in Europe will not be valid because of the differences in cultural living, social economic status, and level of education of Turkish people who migrated from Europe to the United States. When comparing European Turks with American Turks, American Turks have a higher level of education and higher average SES (Isik-Ercan, 2010). The main motivational factor of Turkish individuals to immigrate to the U.S. is for economical or educational opportunities (Altshiller, 2006). However, Turkish immigrants moved to different parts of Europe to take part in different forms of industrial work (Sonmez & McDonald, 2008). Because no study has been conducted to test the psychological status of Turkish-American adolescents, there is no data to show whether or not they are exposed to the same problems that are common among non-immigrant adolescents, or whether they are acculturated with the current education system and social life.

Purpose of the Study

The purpose of this study was to explore whether or not there is a direct link between the educational outcomes of Turkish-American adolescents and their psychological wellbeing. A second purpose is to determine which factors are most commonly associated with emotional and behavioral problems in Turkish-American immigrant adolescents

between the ages of eleven to eighteen years old. By presenting a picture of the psychological status of Turkish-American adolescents living in the USA, the descriptive results of this study may be a step towards detecting the necessity of interventions for these young people. The education of these children is crucial for progression and advancement to be made in all fields of study.

In order to solve a problem, the first step is to detect that a problem exists, and in this case, that detection comes through the process of conducting mental screenings. Detection also comes through understanding the common factors that are associated with an EBP diagnosis. Some of these factors include age, gender, level of parental education, and economic status. In this study, the participants were broken into two study groups (11-14 years and 14-18 years old), and were further studied by the educational status of the parents and the socio-economic standing of the family. The age groups were chosen based on the manual of the surveys because the significant differences on the age groups' means of emotional and behavioral problems were detected in the literature (Achenbach & Rescorla, 2001). These different factors were used when calculating the reasons why these youth may experience emotional and behavioral problems (Birman and Chan, 2008).

To measure the academic success of these students, the GPA from their previous year of education and the academic performance scale of the parent-reported survey were used. The GPA is a more objective source of the two for the educational outcomes of these adolescents. The emotional and behavioral problems were the dependent variables of this study, and they were investigated in these following categories: anxiety, depression, insomnia, aggression, social problems, thought problems, attention-span problems, and rule-breaking behavior.

To obtain more objective information on these adolescents' problems, multiple types of sources were used in the study. In the literature, a relatively modest agreement between

adolescent children and their parents in relation to reports about behavioral and emotional problems of adolescents have been demonstrated in research in numerous Western cultures (Achenbach, McConaughy, & Howell, 1987). However, in Eastern countries, the correlations between self-reporting and parent-reporting were larger than those found in Western society. One possible reason for this discrepancy may be that the Western family autonomy structure is very different from the traditional Eastern values of family obligation and obedience (Petot, Rescorla, & Petot, 2011).

Since modern-day Turkey - characterized by much heterogeneity and social change - is at the crossroads between the Eastern and the Western societies, estimating the adolescent-reported and parent-reported problems to be more similar to either the West or the East is almost impossible. Thus, another factor makes the prediction even more difficult for the correlation between the adolescent-reported and parent-reported problems of the students. The agreement indicates the extent of awareness a parent has of his child's behavioral problems, or to what extent he views his child's problems from the adolescent's perspective. In this study, the agreement between parent-reported problems and adolescent-reported problems was also investigated.

Research questions

Three major research questions were developed in accordance with the purpose of the study:

(1) What relationships exist between academic outcomes and parent-reported and adolescent-reported emotional and behavioral problems?

(2) What are the effects of gender, parental education, and age on the mean levels of adolescent self-reported and parent-reported emotional and behavioral problems?

(3) What is the link between parent-reported and adolescent self-reported levels of emotional and behavioral problems among Turkish-American adolescents? Is there a pattern of agreement?

Theoretical Framework

The Sociocultural Theory strives to show the importance of the role played by social and institutional frameworks in the comprehension of immigrants understanding the meaning of their world (Reese et al., 1995). This comprehension provides a setting for coping with the cultural and educational situations that immigrants experience in the United States school system. For instance, multiple studies observed the way that cultural disjointedness – alterations in values, viewpoints, and expectations, and communication styles between school and home – often affect achievement or disaster in education and learning (Chang, 2004). Even though there has been a concerted effort to focus on the alliance between school and home by early childhood research (Martin & Hagan-Burke, 2002), the views and first-hand knowledge of migrant parents, and the potential benefits that can proposed, have yet to be revealed by the mainstream researchers on the family-school connection.

Bronfenbrenner's (1977) ecological systems theory poses this:"An individual's response to their environment and the ability to cope in that environment is determined by a combination of individual characteristics and the ecosystem that surrounds them." The theories three main categories – the microsystem, macrosystem, and exosystem all make distinctive contributions in the lives of migrant families. The disruption of the relationship between these systems ends in the effects of aggregated stress.

Bronfenbrenner's (1977) microsystem is comprised of exchanges between a person and the environment in which that person exists. In the microsystem of immigrant children, these children may play the parts of students, English learners, sons and daughters, and ancestral links to the home culture. Additionally, the modern roles of the American teenager

often clash with the more traditional standards and cultural values set by immigrant parents. Many parents place expectations that the children stay true to their familial culture and cast aside the values of the host culture (Mazzetti, 1997).

This struggle in the microsystem impacts immigrant children in unique ways which are dependent upon the age of the child, as well as resiliency and risk factors specific to that child. As research shows, adolescence is an exceptionally difficult time, especially for immigrant children. During this time period, youth struggle with peer and self-acceptance and discovery of identity; within the context of the microsystem, the relationship between proper development and peer influence is increased (Fuligni, 1997).

The new country comprises the exosystem, typically downplays the home culture of the immigrant, and stresses the assimilation into the new culture (Mazzetti, 1997). This combination of stressors and disturbances in the three systems increase the risk of dysfunction, particularly in the case of immigrant families.

Significance of the Study

Mental health is an important issue for young adults of all social groups, and immigrant populations in the United States are deprived of proper research to understand their struggles (Suárez-Orozco et al., 2009). This study will be the first to deal specifically with emotional and behavioral problems in Turkish-American adolescents. In order to gain an idea of the descriptive levels of the variables, all of the results will be compared with the available literature. The emotional and behavioral problems of Turkish-American adolescents will be compared to American natives, Turkish natives, other immigrant groups living in the United States, and other Turkish immigrant adolescents living in the European countries. The data determined from this study will be a step towards better detection of psychological, emotional, and educational problems among the Turkish-American population, as well as help protect and maintain the wellbeing of the adolescent age group in the Turkish-American

population while making important contributions to improvements in the health and success of minority groups in the United States.

Because no study has previously been conducted to test the psychological status of Turkish-American adolescents, their exposure to the same problems that are common among non-immigrant adolescents is not known.

Understanding the relationship between the educational outcomes and mental health issues can be a major step in the right direction for education practitioners to help begin the process of preventing these issues from ever beginning. Education is paramount in the lives of adolescents, and the immigrant class of adolescents begins their educational life with several distinct disadvantages. A child's initial introduction to the dominate culture of society comes through their involvement in education.

If children are demonstrating problematic behaviors or symptoms associated with stress, educational professionals are less likely to view these children as engaging. Therefore, they are less likely to seek a supportive relationship with immigrant children (Stanton-Salazar & Spina, 2003). Consequently, the immigrant children steadily become more reclusive and refuse to seek help from teachers, parents, or other students. Because of this reduction in immigrant help-seeking behavior and an increase in intentional or unintentional avoidance by teachers and other educational professionals, these children give up seeking for help, and this increases their ignorance by teachers and school staff. (Suárez-Orozco & Todorova, 2006). Therefore, early detection and prevention of these problems and determination of the factors associated with them can save educational lives.

CHAPTER II

LITERATURE REVIEW

Immigrant Adolescents in Schools

The definition of an immigrant is a broad term describing foreign-born young people and first generation children of immigrant families, and these groups of individuals comprise the most quickly growing student population in America (Capps et al., 2005; Suárez-Orozco & Todorova, 2010). These immigrant students comprise a strong 10-15% of the American youth population (U.S. Census Bureau, 2012), and over the course of the next twenty to thirty years, the population percentage will grow to approximately 30% (Passel, 2011).

These students begin their American education with a number risk factors working in favor of their failure, and although the specific risk factors of these students vary by country of origin, age, living conditions, socioeconomic status, the resolution remains the same: immigrant youth maintain a considerably higher dropout and failure rate in educational programs, and these retain a much higher risk for disabilities – both mental and physical – such as depression and posttraumatic stress disorder (Suárez-Orozco et al., 2010).

Because of these increased risk factors, educators and researchers must address these combinations of physical and mental hazards that many of these students face. These students experience the conflict of previous educational instruction clashing with new learning, social prejudice and discontent, and language barriers. To understand the psychosocial effects of immigration, educators must understand the factors that produce the negative outcomes in these students (Suárez-Orozco et al., 2010).

The immigrant students who battle through the most harmful combinations of these negative factors have traditionally dealt with the least successful circumstances and post-

graduation outcomes (Arzubiaga, Nogueron & Sullivan, 2009). A variety of different programs and initiatives have come in place to help educators use the type of instruction and intervention that these students need. No Child Left Behind, Race to the Top, Response to Intervention, and PBIS are some the more well-known programs (Sugai & Horner, 2009).

Schools are typically the first place that immigrants become assimilated into a culture, and thus academic achievement levels that a student may obtain become a paramount achievement for that student to be considered "adapted" into the current culture. Excellent academic achievement is the water mark by which parents and policy makers judge the effects of educational programs (Arzubiaga et al, 2009). Immigrant families regard formal education in very high esteem (Portes & Rumbaut, 2006), and studies from Suárez-Orozco discovered that first-generation immigrant youth showed fewer signs of detrimental mental or physical issues while maintaining a stronger drive to achieve academic excellence; however, this drive can sometimes be stifled because immigrant children are often educated in lower-income, urban environments that are over-crowded and under-funded. These facilities often do not provide the necessary resources and funding to properly educate immigrant students (Blanchett, Klingner, & Harry, 2009). Because of the high population and low resources, immigrants in urban schools typically deal with a high teacher turnover, sparse language support, simple curriculums, and marginal interaction between parents and teachers (Artiles & Ortiz, 2002; Blanchett et al., 2009; Portes & Rumbaut, 2006).

In a study conducted by Ruiz-de-Velasco et al. (2000), the researchers discovered that under 3% of schoolteachers – grades K through 12 - who taught students classified as English Language Learners (ELL's) made any sort of preparation to work with those pupils. Additionally, immigrant students often face socially hostile environments. Often, students and teachers maintain preconceived negative stereotypes concerning migrant youth and feel that they have no place in the American public school system (Mendieta, 2006). The social

framework presented by U.S. schools can be highly detrimental and harmful to immigrant students. (Portes & Rumbaut, 2006; Suárez-Orozco et al., 2009).

Schools must prepare a response to effectively handle the needs of the immigrant youth, and prepare psychological, social, and academic programs to help nurture a positive education experience. Even though good research exists concerning the experiences that adolescent youth undergo, very little research on effective school programs that intervene for these students exists (Arzubiaga et al., 2009). High-quality research studies are critical for practitioners seeking to effectively intervene in ways that are socially and ecologically valid.

Factors Affecting Academic Achievement

Stress caused by immigration is a well-documented fact in current studies (Stevens et al., 2003). Because of the increasing number of immigrants throughout the world, studies researching the different effects of migration have become vastly important. Immigrants are forced to endure difficult changes while learning a new language, and in some cases, may also have to adhere to a new set of values (Pawliuk et al., 1996). The addition of structural adversity and negative predisposition in the system can greatly increase the troubles of adapting to a new way of life (Berry & Sam, 1997).

Children are especially susceptible to changes caused by migration and acculturation, and adolescents experience a heightened risk for developing psychological problem because of the expectations placed upon them to function within their family or ethnic community, while still successfully interacting among peers and society (Davies and McKelvey, 1998). The tug-of-war experienced by these youth can cause great internal conflict and cause these students to feel alienated. Language barriers, a difficult educational system, and negative stereotypes combine with the already stressful time period of adolescence, and this can often be the cause for emotional and behavioral problems (Davies and McKelvey, 1998).

Several different psychosocial factors affect the lives of immigrant youth. Immigration stress

results from the emotionally taxing experience of crossing cultural and political borders. The

three main areas where immigrants experience stress are (1) migration stress; (2)

acculturative stress; and (3) traumatic stress (Birman, 2002). Migration stress happens when

individuals are exposed to the different stressors that develop from leaving a home country

(Birman, 2002), including established social networks and emotional ties. This loss can also

result in feelings of survivor guilt (Suárez-Orozco et al., 2010). Because many immigrant

families migrate more than once in their search of better social environments and financial

opportunities (Portes & Rumbaut, 2006), immigrants may feel the effects of migration stress

more than once. This stress spills over into the academic world and causes immigrant

students to feel unwelcome in the classroom (Birman, 2002; Suárez-Orozco et al., 2010).

Acculturative stress happens when an immigrant is attempting to adapt to the new

social and cultural contexts of a different country (Birman, 2002). Immigrants face a number

of different obstacles in their new society, such as having to learn a new language and

observe new cultural practices, while also struggling with tough personal circumstances,

usually involving rougher neighborhoods with substandard schools (Anyon, 2005; Suárez-

Orozco et al., 2010). Successfully achieving the balance between socially cultural

expectations and family cultural expectations is crucial for academic achievement (Vedder,

Boakaerts, & Seegers, 2005).

In addition to the personal and social stress factors, the process of immigration may

often include traumatic circumstances. Traumatic stress deals with situations that cause the

traumatic stress, and are directly related to the economic, political, social, and psychosocial

toll associated with entering a new country. Traumatic stress is also related to disorders such

as PTSD and depression (Birman et al., 2007). Because of this, many migrant students

experience behavioral and cognitive troubles (grief, anxiety, guilt, depression, and memory

problems), which additionally retard their social and educational transition (Birman et al., 2007; Suárez-Orozco et al., 2010).

Even though education facilitators must be aware of the negative issues that are related to immigration stress,   they must equally be aware of the numerous strengths that immigrant youth can exhibit because of the stress in their lives, including motivation to excel, resiliency, and family support. Having this awareness brings the ability to respond appropriately to the educational and psychological needs of immigrant youth. In addition, the strengths and challenges of immigrant youth cannot be fully understood at the individual level, but must be viewed within the larger social and educational context of the immigrant community and host country (Bal & Arzubiaga, 2013).

Ataca (2006) demarcated that psychological adaption, placed in context of different moods, can be estimated by different factors including personality, social framework, academic framework, and life changes. Searle and Ward (1990) discovered that extroversion, positive life events, and satisfaction with relations in the host nation gave an estimate for the psychological adaptation in Malaysian and Singaporean students in New Zealand.

A large percentage of the variances in psychological health are contributed to personal relationship satisfaction, more external control, and positive life changes (Ward & Kennedy, 1992). Adversely speaking, assessed in terms of social difficulty, social adaption (measured by grades of societal difficulty) was projected by factors more strongly linked with the procurement of social skills and cognitive variables including language comprehension, distance and identity, time spent in residence, cultural awareness, and degree of interaction with host country residents (Ward & Kennedy, 1992).

Educational Theories

In Isik-Ercan (2010)'s study, the importance of sociocultural theory was explained through a detailed literature review of the topic: the theory strives to show the importance of

the role played by social and institutional frameworks in the comprehension of immigrants understanding the meaning of their world (Reese et al. 1995). This comprehension provides a setting for coping with the cultural and educational situations that immigrants experience in the United States school system. For instance, multiple studies observed the way that cultural disjointedness – alterations in values, viewpoints, expectations, and communication styles between school and home – often affect achievement or disaster in education and learning (Chang, 2004). Even though there has been a concerted effort to focus on the alliance between school and home by early childhood research studies (Martin and Hagan-Burke, 2002), the views and first-hand knowledge of migrant parents, and the potential benefits that can be proposed, have yet to be revealed by the mainstream researchers on the family-school connection.

To date, studies from the sociocultural viewpoint primarily narrow in on the role of migrant parents and guardians as cultural go-betweens (Suarez-Orozco et al., 2009) and proxies of their children's learning, despite the obstacles faced by the average immigrant family (Cooper et al., 2005). For example, three Hispanic immigrant sets of parents discussed in Carreon et al.' (2005) study all showed similar difficulties wtih the students entering school culture and creating successful partnerships with the school faculty, but they also were able to navigate these tough areas to help expand their children's education. Li's (2001) research showed that Chinese migrants maintain very high demands for their children's academic success, but also show strong support for these demands and believe that educational achievement well help surmount cultural barriers.

Indeed, parents are experts on their children and their children's capabilities, and from a sociocultural viewpoint, teachers must take advantage of this expertise to create a partnership with the parents to help learn how migrant families navigate cultural and educational difficulties.

When considering how to develop effective interventions to facilitate equal opportunities of migrant students experiencing difficulties, it is crucial to understand and acknowledge the complex structural and individual factors along with the ways in which these factors relate to encourage or hinder the equal opportunities for immigrant students.

Cumulative Risk Hypothesis

Bronfenbrenner's (1977) ecological systems theory poses the following, "An individual's response to their environment and the ability to cope in that environment is determined by a combination of individual characteristics and the ecosystem that surrounds them." The theories three main categories – the microsystem, macro system, and ecosystem all make distinctive contributions in the lives of migrant families. The disruption of the relationship between these systems ends with the effects of aggregated stress.

Bronfenbrenner's (1977) microsystem is comprised of exchanges between a person and the environment in which that person exists. In the microsystem of immigrant children, those children may play the parts of students, English learners, sons and daughters, and ancestral links to the home culture. Additionally, the modern roles of the American teenager often clash with the more traditional standards and cultural values set by immigrant parents. Many parents place the expectations upon their children that the children must stay true to their familial culture and cast aside the values of the host culture (Mazzetti, 1997).

This struggle in the microsystem impacts immigrant children in unique ways (dependent upon the age of the child) as well as attacking their resiliency and adding risk factors specific to that child. As research shows, adolescence is an exceptionally difficult time, especially for immigrant children. During this time period, youth struggle with peer and self-acceptance and discovery of identity; and in the context of the microsystem, the relationship between proper development and peer influence is also increased (Fuligni, 1997).

17

The macro system contains the local culture and customs. A variety of factors make up this section, but mainly include the status of the neighborhood (violent, low-income, high-income, or low crime rate), struggle with learning a new language, concern over possible deportation, unemployment, and low income brackets, all of which add a layer to an immigrant's experience in their macro system.

The new country comprises the ecosystem, and typically downplays the home culture of the immigrant and stresses the assimilation into the new culture (Mazzetti, 1997). This combination of stressors and disturbances in the three systems increase the risk of dysfunction, particularly in the case of immigrant families.

Migration-Morbidity Hypothesis

The migration-morbidity hypothesis refers to the culmination of stressors immigrants encounter that lead to difficulties with mental health (Klimidis, Stuart, Minas, & Ata, 1994). Multiple studies have denied this hypothesis, stating that no difference exists between immigrant children and native children when dealing with psychiatric disorders (Munroe-Blum et al., 1989; Roebers, 1999; Zwirs et al., 2007). Taking this even further are some researchers who state the immigrant children are actually less likely to have behavioral or psychiatric problems than children native to the country (Davies et al., 1998, Georgiades, Boyle, & Duku, 2007). Because of this conflict between the two camps of researchers, further study of this hypothesis is needed to determine the validity of the arguments on both sides.

The stress-related effects of immigration on children has been a popular topic of study around the world, and most of the research has taken place outside the United States (Cheung, 1995). In 1979, researchers began to study the assimilation and adjustment of Finnish and Southern European immigrant children (Aurelius, 1979). On the international level as a whole, a veritable trove of knowledge has been collected on how immigrant

children respond in their new surroundings. Australia, Canada, Germany, Israel, Russia, Sweden, and Turkey have all been in the lead to explore the effects of immigration on children (Atzaba-Poria et al., 2004; Beiser, Hou, Hyman, & Tousignant, 2002; Bengi-Arslan et al., 1997; Davies & McKelvey, 1998; Roebers, 1999).

Russia, the country with the second-highest population of foreign-born immigrants, has fervently supported these studies to understand the sociological impacts on the children who rapidly comprise the new generation of their nation (Markus, 1980; Ponizovsky, Ritsner, & Modal, 1999). Because of the internal conflict within the country, Turkey has investigated the effects of immigration, primarily in relation to children (Aksel, Gün, Irmak, & Çengelci, 2007).

Turkey, like Russia and Sweden, has sought to learn more about the transition from another country into their own by conducting research that reflects this sociological change. In addition, Sweden has also conducted studies of immigrants reflecting their current population growth (Bengi-Arslan et al., 1997; Crijnen, Bengi-Arslan, & Verhulst, 2000; Murad et al., 2003; Reijneveld et al., 2005; Stevens et al., 2003).

A literature review of these studies suggests that migrant youth have an increased susceptibility for universal psychosomatic disorders as a result of their immigrant status, which bolsters the arguments made by the migration-morbidity hypothesis (Bankston & Zhou, 2002; Derluyn, Broekaert, & Schuyten, 2008; Lien, Haavet, Thoresen, Heyerdahl, & Bjertness, 2007; Mirsky et al., 2008; Oppedal, Røysamb, & Heyerdahl, 2005; Reijneveld et al., 2005).

Internalizing and Externalizing Effects of Migration-Morbidity

The issue of internalizing mental health troubles was observed in many of the immigrant children groups studied. Particularly, the material suggests that an influx of anxiousness and depression existed in these youth (Bengi-Arslan et al., 1997; Crijnen et al.,

2000; Diler, Avci, & Seydaoglu, 2003; Goldin et al., 2008; Mirsky, et al., 2008). Specific risk factors such as living in a single parent home or dysfunction family, health problems, mental health problems in the family history, and failing and repeating grades were related to an increase in negative emotional and behavioral conditions in immigrants, as opposed to their peers who were born in the host country (Murad et al., 2004).

Furthermore, a growth in suicidal tendencies and parental depression are specifically noted in immigrant children when compared with their native peers (Ponizovsky et al., 1999; Rousseau, Drapeau, & Corin, 1997). Immigrant children also exhibited a proclivity for externalizing destructive behavior, such as aggressive attitudes and intentional rule-breaking (Stevens et al., 2003). The main reason that is given for these behaviors is severe stress (O'Shea et al., 2000).

Internalizing and Externalizing Effects in an Educational Setting

Teaching staff reported that migrant students have a tendency to display behavioral issues and signs of anxiety and withdrawal (Markus, 1980; O'Shea et al., 2000; Palaiologou, 2007; Stevens et al., 2003). One Turkish study discovered that migrant students had a much higher rate of self-reported internalizing effects constant with depression and anxiety, but the teachers reported little to no difference in externalizing negative behavioral systems when comparing them with native students (Diler et al., 2003). The negative self-view possessed by migrant students could possibly be attributed to perceived short comings and fear and anxiety due to residing in a new country and attempting assimilation or resistance to a new culture. Also, the externalizing problems most typically surface in the male population, which agrees with previous studies conducted (Neto, 2009; Stevens et al., 2003; Zwirs et al., 2007). Academic difficulties can lead to an increase in externalizing behavior in immigrant children (Murad et al., 2004; Stevens et al., 2003).

Educational Implications of Stress and Trauma

The number of traumatic events that an immigrant family experiences appears in direct correlation to the increase of educational struggles experienced by the children (Rousseau & Drapeau, 2000). Other studies also have linked the traumatic situations experienced in the home country to be in direct relation to deficits in memory, attention span problems, and visual-spatial performance (Scrimin et al., 2009). Immigrant children who are exposed to a variety of factors may have an increased vulnerability to the effects of trauma, which affects their educational performance.

Turkish Family Structure and Values

Turkey is the cultural crossroads of Western and Eastern civilization, and it is often characterized by heterogeneity and social change, which have caused formation of prototypical Turkish families (Ataca, 2006). These two prototypes generally fall into two categories: the first is the traditional interdependent family, and the second prototype is the psychological interdependence-based family on Kağıtçıbaşı's (2007) Model of Family Change. Kağıtçıbaşı's theory describes three prototypes found in Turkish families. His first model, the family model of interdependence, is typically found in more rural contexts in which "cultures of relatedness" have a strong pull over the family. This prototype consists of a family system made up of both psychological and material interdependencies.

In contrast to this model, the family model of independence is typically associated with a more urban setting, as is common in westernized, industrial cultures. In this setting, individual independence is high, and dependence upon the other family members is low.

The third model is a combination of parts of the first two. This pattern is developed around an urban, high SES context that still maintains patterns of influence through dependent relations. In this setting, the material interdependencies found within the first model are weakened, but the psychological interdependencies are strengthened from the second model.

Turkish society maintains distinct social classes. Arguably, there is a large divide between the Turkish nationals with high SES and high educational levels and those who have lower SES and lower educational levels. This class difference is very similar to that of the difference between Western North American culture and the general Turkish society (Koçtürk, 1992).

The household structure in Turkey mainly consists of two parents and their children, but strong relationships are typically maintained with the extended family. At one point, a male hierarchy was common in Turkish families with men claiming superiority (Fisek, 1995). However, less strict traditional relationships have given way to more modernized relationships based on equality. These western-style marriages are more common among couples with high SES and educational status. Also, studies have shown that the more traditional families are likely to have more children and larger households than those belonging to the modern families (Ataca, Sunar & Kagitcibasi, 1996).

When these traditional families migrate to the U.S., the western value of autonomy conflicts with the cultural Turkish values of placing family obedience and obligation first, and this conflict can potentially cause stress in traditionally structured families (Fuligni, Tseng, &Lam, 1999). Typically, the longer an individual is immersed in the new culture, the more likely they are to adhere to the new values they are taught, rather than staying true to the values instilled from their native country. Phinney, Ong, & Madden (2000) found evidence of intergenerational differences regarding family obligation and obedience values among immigrant families.

First and second generation youth typically show a better cultural awareness and adherence to family-driven values, while later generations prefer to follow the current culture. Children who act through a greater sense of obligation, obedience, and loyalty are considered to be more aware of their culture than the youth who act with a greater sense of autonomy

away from their families. Family obligations and obedience values provide indicators of the potential conflict between internal versus external influences on immigrant children.

The Perspectives of Turkish Families towards School

Isik-Ercan (2010) summarizes the perspectives of Turkish families towards schools in a separate part in her study: the majority of Turkish parents in the United States are proficient in the English language and have a mid to high socio-economic status. Despite these outward signs of adherence to American culture, they sometimes still felt disconnected from schools due to a lack of cultural experience and knowledge in regards to the American school system (Park and Sarkar, 2007). Parents find understanding how the curriculum and schoolwork are designed in their children's schools to be difficult. Even parents with advanced degrees in science and math may find many challenges in understanding the new symbols and operations used in the U.S. educational system.

This makes the collaboration between Turkish parents and school teachers more difficult, and often can hinder the attempts from the parents to be involved in assisting the learning experiences of their children.

Turkish parents, who have experienced at least two cultural and educational contexts (in Turkey and in the United States), have ''a dual frame of reference'' (Suarez-Orozco, 2009). Most parents view the curriculums very critically and encourage the need for more challenging and arduous academic challenges; therefore, studies conducted over understanding the backgrounds of the parents may be helpful so that they may more effectively support the education of their children (Isik-Ercan, 2010).

In Turkish culture, the teachers play an important role, and are almost considered a part of the family. They help teach the children character, morality, and social skills as well as educational material, and immigrant Turkish parents have difficulty reconciling this previous pedagogical image with the very different role that American teachers play (Isik-

Ercan, 2010). The need for a stronger partnership between home and school in order to form meaningful connections between Turkish families and the school system is apparent to both parents and teachers (Sobel and Kugler, 2007).

Emotional and Behavioral Problems

Emotional and behavioral problems are very common among adolescents (Reijvenald et al., 2014). These problems (EBD) are used by educators as a general definition to identify the myriad of problems in adolescents (Currie and Stabile, 2006).

In the study done by Currie and Stabile (2006), they mention that emotional and behavioral disorders are divided into two categories: internalizing disorders and externalizing disorders. The distinction between these categories is determined by whether the behaviors are displayed inwardly towards the individual or outwardly towards others. Internalizing problems consist of depression, worry, fear, or self-injury and externalizing problems consist of aggression, angry outbursts, law-breaking, or hyperactivity.

Anxiety is the most common disorder found among adolescents (Bernstein, Borchardt, & Perwien, 1996), and is reported that as many as 21% of child community samples suffer from anxiety (Kashani et al., 1989). Early childhood and adolescent onset (Kessler et al., 2005), as well as a chronic course (Last, Hansen, & Franco, 1997), are characteristics of anxiety disorders. Because of the high attraction rate of this disorder and the harmful effects caused by the symptoms, anxiety is a disorder that is worthy of intensive study. The prevalence of this disorder among children belonging to minorities is not known (Zahn-Waxler, Klimes Dougan, & Slattery, 2000).

Somatic symptoms have been found to be additional diagnostic features in children across a number of disorders, including depression and anxiety (Egger, Angold, & Costello, 1998). Somatization describes stress that is manifested in physical, feelable symptoms, including headaches, dizziness, nausea, and other types of bodily grievances and pains

(Keyes & Ryff, 2003; Kirmayer & Young, 1998). Somatization is common among children with anxiety-spectrum disorders, with 60%-94% of all those diagnosed claiming somatization suffering of some form (Ginsburg, Riddle, & Davies, 2006; Last, Hansen, &Franco, 1991; Masi et al., 2000).

Emotional and Behavioral Problems of Immigrant Adolescents

Stevens et al. (2003) estimate from their study that the probability of immigrant youth having emotional or behavioral problems is much higher than that of native youth. Early studies did in fact indicate a greater risk of disorder among immigrant children in some groups (Munroe-Blum et al., 1989). In contrast, according to the results obtained from recent studies, fewer externalizing problems have been reported or diagnosed by adolescent immigrants residing in Australia and Greece when compared to their non-immigrant peers (Davies and McKelvey 1998; Livaditis et al. 2000).

The conclusion of a study done by Klimidis (1994) in Australia showed no differences in self-reported psychopathology between immigrant adolescents and their non-immigrant peers in Australia. Studies also showed that Chinese parents, African-American parents, and other foreign nationality parents residing in Australia reported fewer emotional problems than the parents of native children (Davies and McKelvey 1998). A study conducted in Great Britain showed no difference in the emotional problem levels when comparing immigrant and native adolescents (Rutter et al. 1974).

These contradictory studies have proven no general conclusions about the effect of immigration on the psychological development of youth for several reasons. First, the varied results could be the results of differing methods of research and study. The studies used different methods of identifying and measuring the behavioral and emotional problems of the students.

Klimidis (1994) and Rutter et al. (1974) did not use the Child Behavior Checklist,

25

Teacher's Report Form, or Youth Self-Report to measure behavioral and emotional problems, whereas other above-mentioned studies have employed these surveys as methods in their analyses. Furthermore, the samples sizes in the studies under discussion varied extensively in size. The process by which responses were gathered also varied, but the definition of immigrant children did remain consistent throughout the different studies.

One study selected participants who attended a single school for non-English-speaking youth (Davies and McKelvey, 1998), while the children's ethnicities in another study were gathered via the self-identification of parents as Asian, Hawaiian, or Caucasian (Loo and Rapport 1998).

The second reason for the absence of general conclusions among these studies is the reason that the levels of behavioral and emotional problems reported by the parents, teachers, and adolescents varied greatly. Another possible reason might be the variability between immigrant groups (Berry and Sam, 1997). This variance may be related to the many differences including differences in culture, socio-economic status, education, and reception in the host country among various migrant groups

The only available literature on the psychological status/adjustment of Turkish immigrant adolescents deals with the children of Turkish immigrants in European countries. According to a study that was performed by Murad and his colleges (2003), Turkish immigrant adolescents in the Netherlands have more internalizing and externalizing problems than their native Dutch peers. Another study that was performed in the Netherlands by Bengi-Arslan and her colleges (1997) discovered more internalizing and externalizing problems have been reported by Turkish parents about their children than by the Dutch parents.

Several earlier publications have compared and reported the similarities and differences between Turkish immigrants and Dutch children (Bengi-Arslan et al. 1997; Murad et al., 2003). While Turkish parents and adolescents reported more emotional and

behavioral problems about their children, no significant differences were revealed between Turkish immigrant and native Dutch children based on the reports given by teachers. The generalizability of Turkish-European adolescents' psychological status to Turkish-American adolescents may not be valid because of several differences.

Ataca (2006) describes the first generation of Turkish immigrants in Europe as coming from mostly rural or low-income urban backgrounds with relatively low levels of education, which upon migrating to Europe, lived primarily in Turkish-dominate neighborhoods in big cities. These Turkish sectors endeavored to hold strongly to their cultural identity, preferring to reject building new relationships with the host society, and mainly preferred to have separationist attitudes. They preferred to stay isolated and chose to integrate into the host population as seldom as possible (Piontkowski et al., 2000). This penchant to avoid contact with the dominate society could be explained by the lower educational levels and minimal language skills, as well as by the discrimination received from the host culture (Berry et al., 1989).

In comparison to European Turkish immigrants, Turkish-Americans have a higher level of education and higher average SES. The median family income among Turkish immigrants in America is about $58,000, and approximately 50% of Turkish immigrants who are twenty-five or older hold an undergraduate or graduate degree (Isik-Ercan, 2010).

The main motivation for Turks to immigrate to the U.S. has been for economic advancement and educational opportunities. Since the 1950's, the majority of Turkish immigrants have been educated professionals and academicians – primarily engineers and physicians – and a good number of have opened small business and formed Turkish-American organizations. This group has settled primarily in New York (Altschiller, 2006).

Factors Affecting the Emotional Behavioral Disorders of Immigrants Adolescents

Social Economic Status

Throughout the past century, experts have come to see mental health as one of the most important issues facing children and adolescents. In western culture, the number of youth affected ranges from 10% to 24% (Sonego et al, 2013). Taking precedence as an important factor is the SES of the family, and this is especially true for immigrants who hail from cultures with distinctive social and economic classes (Ataca, 2006).

Low socioeconomic status (SES) is one of the primary factors related to poor mental health in adolescents (Sonego et al., 2013). Ataca and Berry (2002) concluded based on their study with Turkish-Canadian immigrants that the higher SES group has greater access to resources such as a higher level of education and greater language proficiency, which makes it easier to manage life in a Western setting; however, low SES groups' lifestyles are very similar to those of the first generation of Turkish immigrants to migrate to Europe.

Parental Education

A definite relationship is observable between the parental education level and the mental health level of children four to five years old (Davis et al., 201). A similar association was observed among Dutch children five to six years old (Sonego et al. 2013). In a collaborative study conducted on children and adolescents aged eight to eighteen years in seven European countries, low parental education was associated with a low quality of life in the eight to eleven-year-old category, but not in the youth in the eleven to eighteen-year-old age group, among whom family monetary status played a more vital role (Von Rueden et al., 2006).

Up to this point, studies dealing with the parental education level deal primarily only with the mother's education level, so the effects of the paternal education level is unclear, or the effects of the combined education of both parents is also unclear (Sonego et al, 2013). Sonego et al. (2013) found a more powerful link in their research between parental education level and parent-reported child mental health issues than found in the link between SES and

mental health; however, the effect of parental education on adolescents appears to be weaker than other social factors.

Gender

Gender is correlated with the obtaining of certain mental disorders like depression, anxiety, and somatic complaints ("Gender", 2014). Major depression is twice as likely to be found in men than it is in women, while men are more than three times as likely to be diagnosed with antisocial personality disorder. There are no marked gender differences in the diagnosis rates of serious psychological disorders ("Gender", 2014).

The research conducted on the emotional and behavioral disorders of immigrant adolescents indicates that girls tended to score higher on the internalizing problems scale, especially when between the ages of twelve and sixteen. By contrast, boys tended to score higher on externalizing kinds of problems (Ataca, 2006; Bengi-Arslan et al., 1997; Bernstein et al., 1996, Birman et al., 2007).

The Agreement between Parents and Adolescents on

Emotional and Behavioral Problems

Information concerning the problems experienced by adolescents can be achieved from several different sources, with the main ones obviously being the obtaining of the data from the parents and adolescents and entering it in Achenbach's series scale, a well-known tool used to diagnose the mental and behavioral problems in youth (Achenbach & Edelbrock, 1987). Achenbach's scales utilize the Child Behavior Checklist (CBCL), which is a survey filled out by the parents and teachers (Achenbach & Rescorla, 2001), and the Youth Self-Report (YSR), which is completed by the adolescents (Achenbach & Rescorla, 2001) to assess emotional and behavioral problems in youth aged eleven to eighteen years old.

Parents are considered important sources of information pertaining to their children's

behavioral problems; however, the full extent of the parents' knowledge concerning their children's varied behavior is very unclear and most likely diminished. Also, because of the age disparity between parents and children, parents are not likely to have the same emotional threshold when listing psychological problems (Addi, 1994). Achenbach and Rescorla (2001) recommended the necessity of preserving the input from the different sources, and found that different groups provided information on different levels of recognized problems. Because of this discrepancy, information from both sources is needed to obtain a full understanding of the emotional and behavioral problems in youth.

Research in numerous Western cultures has also clearly demonstrated a relatively modest agreement between parents and adolescent children in relation to reports of the adolescents' psychological issues to preserve self-image and public opinion (Petot, Rescorla & Petot, 2011).

Aims of the Study

Because of the influx in recent immigration from other countries, approximately 20% of students speak a mother tongue other than English in the United States (Howard, 2006). Turkish-Americans are a small but rapidly growing immigrant community in the United States (Isik-Ercan, 2010). According to the 2010 census, there are 117,000 people with Turkish ancestry in the U.S.A. (US Census, 2010). Studies on the relation between migration and mental health have suggested a strong association between migrant status and psychological disorders (Murad et al, 2004; Davies & McKelvey, 1998), and the literature reviewed intends to help make that connection.

During adolescence, youth encounter a strenuous time period filled with considerable amounts of stress and pressure, and they regard themselves neither as being a child nor as being an adult; therefore, there is a considerable susceptibility to developing emotional and behavioral problems during this period due to lack of personal identity (Murad et al., 2004).

Because immigrant adolescents experience additional stress related to cultural and social differences and acculturation problems, they may be at greater or different risk than their native peers.

The aim of this study is to determine which factors are most closely associated with emotional and behavioral problems in Turkish-American immigrant adolescents between the ages of eleven and eighteen years old. By providing a formation of an idea of the psychological status of Turkish-American adolescents living in the USA, the descriptive results of this study may be a step toward detecting the necessity of an intervention in those students exhibiting mental health issues or emotional problems.

Stevens et al. (2003) concluded that the parent-reported problem behavior predicts poor outcomes several years later, such as academic problems, school behavior problems, use of mental health services, and a child's need for professional help and police contacts (Verhulst et al., 1994). This means that the high level of internalizing problems reported by Turkish parents and the high level of externalizing problems of children reported by teachers must be taken seriously.

CHAPTER III

METHODS

This chapter describes the methods and procedures involved in the present study. It revisits the purpose of the study and research questions that the study attempts to answer, presents an overview of the design, and describes the participants, the instruments, as well as data collection and data analyses procedures.

Purpose of the Study

The purpose of the present study was: (a) to identify the effects of internalizing problems, externalizing problems, and totals problems of YSR (adolescent reported survey) and CBCL (parent reported survey) on GPA and academic performance scale of parent-reported surveys; (b) to identify the effects of SES, gender and age groups (11 to 14 vs 15 to 18) on internalizing problems, externalizing problems, and totals problems of YSR and CBCL; (c) to uncover the relationship or potential pattern between YSR and CBCL scores.

Restatement of Research Questions

This study attempted to address the following research questions:

(1) What relationships are there between academic performance, GPA, parent-reported and adolescent- reported emotional and behavioral problems?

(2) What are the effects of sex, age, and SES on the mean levels of parent-reported and adolescent self-reported emotional and behavioral problems?

(3) What is the relationship between parent-reported and adolescent self-reported levels of emotional and behavioral problems among Turkish-American adolescents? Is there a pattern of agreement?

Overview of the Research Design

Overall, the current study was a quantitative, cross-sectional descriptive study using a one-time survey to gather information from study participants and their parents. The research design is correlational research, because the relationships of the variables were explored. Also, it can be counted as "Epidemiological Research" because this study investigates the prevalence of emotional and behavioral problems in the Turkish-American adolescent population (Achenbach and Rescorla, 2001).

To understand the emotional and behavioral problems of Turkish-American adolescents, the following variables were investigated under three main categories: the internalizing scale obtained from the sum of Withdrawn/Depression syndrome, somatic complaints, Anxious/Depressed syndrome scales; and the externalizing scale obtained from the sum of Delinquent behavior and Aggressive behavior. A Total Problem Score can be computed by summing up externalizing scale, internalizing scale, social problems scale, and thought problems scale.

Gender and age groups (11 to 14 years and 15 to 18 years) of the adolescents and the socioeconomic status (SES) of the parents were also explored based on their relations with emotional and behavioral problems of adolescents. SES of the family was measured by using the Four Factor Hollingshead Index (Hollingshead, 1975). The measures of this index (parental education, occupational status, sex, and marital status) were asked in a questionnaire which was attached to the parent survey and calculated to determine their SES. The results showed that the participants were dominantly upper-class, with 92% meeting the qualifications, and 8% of them were upper middle-class. Because of the insufficient variability of the variable, SES was not included the analyses.

To measure the academic outcomes of adolescents, two measures were used: the grade point average (GPA) from the previous year and the academic performance scale items

obtained from the Child Behavior Checklist (Achenbach & Rescorla, 2001). GPA was reported by the parents of the adolescents. GPA of the adolescents were reported either out of 4 or out of 100. To standardize GPA, all of the points were converted to a point out of 4 by using this equation (x/4= reported GPA/100).

Correlations, group comparisons, and multiple regression techniques were applied to investigate the influence of affecting factors on the emotional and behavioral problems of the adolescents.

Data was collected by using two existing instruments. A paper copy of the instrument "Youth Self Report," which measured emotional and behavioral problems of adolescents, was administered to Turkish-American adolescents. Also, another existing instrument "Child Behavior Checklist (CBCL)" were administered to the parents of the adolescents.

Population and Sample

The target population is Turkish-American adolescents living in the United States. For the inclusion criteria, at least one of the parents should be from Turkey. Also, the adolescents were picked on the criteria that that they were born in the United States, or at least they came here before they were five years old. The adolescents who do not speak Turkish were not included in the research. Snowball sampling procedures were used to draw a sample of Turkish-American adolescents through Turkish cultural centers in Birmingham, AL; Atlanta, GA; Jacksonville, FL; and Greenville, SC. The investigator contacted the administrators of these cultural centers and informed them about the current study and the intention of collecting data from the centers. The administrators informed the researcher about the dates of state-wide friendship meetings which were held in the center. Both the adolescents and the parents were available in those meetings. Then, the researcher visited each of these four cultural centers between December 2014 and November 2015.

All families who were present at the time of data collection were invited to participate. Participation was voluntary. Eighty-one surveys were collected, of which six were excluded from the analyses because the manual of the surveys recommends omitting the sample if there are more than nine missing answers to the questions. As a result, the total sample includes seventy-five adolescents. Demographics of the samples are shown in Table 1.

Table 1. *Individual and Characteristics as a Percentage of the Sample*

Characteristics	Number	Percent
Gender		
Boy	36	48
Girl	39	52
Age Group		
Group 1 (11 to 14 years old)	47	62.7
Group 2 (15 to 18 years old)	28	37.3
Parental Education		
College	46	61.3
Graduate School	29	38.7
Socioeconomic Status		
Upper middle	6	8
Upper	69	92

Instrumentation

The instruments used in this study were The Youth Self-Report and the Child Behavior Checklist developed by Achenbach and Rescorla (2001). YSR is a standardized self-report to assess emotional and behavioral problems in adolescents 11–18 years of age. CBCL is a parent report form used for assessing the emotional and behavioral problems of children 4–18 years old. Both surveys were subdivided into two sections, a competence section and a problems section. Competence sections of both scales assessed activities, social relations, and academic performance of adolescents. The problems sections covered a variety of problem behaviors; answers were rated 0 if the item was not true, 1 if the item was somewhat true, and 2 if item was very true. Items were scored on three broadband scales: internalizing scale obtained from the sum of withdrawn/depression syndrome, somatic

complaints, and anxious/depressed syndrome scales; externalizing scale obtained from the sum of delinquent behavior, and aggressive behavior; and social problems scale. A total problem score was computed by summing up the externalizing scale, internalizing scale, social problems scale, and thought problems scale. YSR included 103 problem items while CBCL included 120 problem items (Achenbach & Rescorla, 2001).

T-scores were normed on a clinical population. The T score cutoff was (greater than or equal to) 64, for Total, Internalizing, and Externalizing, which was considered to be the clinical range designation. The borderline clinical range was extended downward from the previous version of the CBCL, where the T score cutoff was 60. Higher scores indicated greater behavioral and emotional problems. YSR and CBCL have been norm-referenced for large populations, and have demonstrated adequate internal and test-retest reliability (Combs-Orme, Heflinger, & Simpkins, 2002). Tehrani-Doost et al. (2003) completed a comprehensive review of the surveys and noted that psychometric properties were strong. Internal consistency reliability was .71 to .97 for the syndrome scales. Internal consistency of 0.7 as measured by Cronbach's Alpha is suggested as an acceptable reliability in social sciences (Ross & Shannon, 2008). Namely, these points indicated that both YSR and CBCL had good internal reliability. However, we should keep in mind that some scales with relatively low internal consistency may be more valid than some scales with very high internal consistency (Achenbach & Rescorla, 2001). For the YSR and CBCL surveys, internalizing problems and externalizing problems may be negatively correlated, which would affect the level of internal reliability.

Test-retest reliability ranged from .88 to .90 for the CBCL and .79 to .88 for the YSR (Achenbach & Rescorla, 2001). Since this instrument was considered as the standard that other instruments of adjustment or pathology were based on, the traditional measures of current validity were difficult; however, Achenbach repeatedly provided information

36

concerning high 28 concurrent correlations with related instruments (Furlong & Wood, 1998). For more information on the CBCL, see Achenbach and Rescorla (2001). For the 2001 version of the ASEBA, two types of factor analysis were conducted for both the CBCL and YSR: Exploratory Factor Analysis and Confirmatory Factor Analysis (Achenbach and Rescorla, 2001). Results yielded eight factors as described above. All eight of the factors resembled the factors that were derived from the 1991 analyses of the CBCL and YSR, although some of the items that loaded onto current factors differed from the earlier versions. These differences may have resulted from larger and more diverse samples of children, exclusion of children younger than 6 from the CBCL, replacement of some CBCL and YSR problem items with new items, use of tetra choric correlations for items scored 0 versus 1 and 2, use of a greater variety of more advanced exploratory and confirmatory methods, and derivation of final factors for each instrument from all gender and age groups (Achenbach & Rescorla, 2001). The same authors evaluated the goodness-of-fit between the data and factor models by computing the Root Mean Square Error of Approximation, which yielded values within the range of .03 to .07 (.06 for the CBCL and .05 for the YSR) which indicated a good fit (Rescorla et al., 2007).

Data Collection Procedures

The data collection process lasted from December 2014 to December 2015. The data were collected in Birmingham Turkish Cultural Center in Alabama, Atlanta Turkish Cultural Center in Georgia, Jacksonville Cultural Center in Florida, and Greenville Cultural Center in South Carolina. Data was collected using the paper versions of the YSR and CBCL. Approval from Auburn University Institutional Review Board for the Protection of Human Subjects in Research was obtained prior to data collection.

The researcher contacted the administrators in these Turkish Cultural Centers and explained the details of the current study. They referred me to their members and made an

announcement to the members about the study. The members also helped to expand the participants by referring me to their friends who have adolescents who qualify to participate in the study. Paper versions of the both surveys were administered and the data was collected after Turkish community friendship meetings were held in these centers.

The details of data collection process is described as follows:

1. The investigator collected data from both the parents and children who were present in the friendship meetings of Turkish Cultural Centers.

2. In the friendship meetings, the investigator identified the parents who had children between the ages of 11 and 18 years old with the assistance of both the administrators and the families.

3. The parents were informed about the research verbally, and they were assured that the participation was voluntary. If they showed interested in participating, then the questionnaire with the information letter, parent consent form, and adolescent assent form were provided to the family.

4. For the adolescent self-report, one "Assent Form" and one questionnaire were administered to each adolescent. For the parent report, "A Consent Form" and one questionnaire asking about SES and GPA were handed out to each parent. The questionnaires and the consent forms were collected independently to assure confidentiality.

5. Each survey was numbered. To be able to match the parent report survey and adolescent report survey (their agreement were analyzed), the surveys were handed out so that the parent and adolescent received surveys with the matching numbers.

Data from the surveys were coded and entered into an SPSS file (Version 21). After data comparing and error-correcting in SPSS, the original paper surveys were destroyed. Data was saved in password protected computers and shared only with university committee members of this study.

Data Analysis

Research question one examined the relationship between academic outcomes of the adolescents and their emotional and behavioral problems. The "academic outcome" construct was assessed by two measures: GPA and academic performance scale obtained from the parent-reported survey. These two measures were also used as the dependent variables of the analyses in this section. Four multiple linear regression analyses were completed to address the research question if internalizing YSR score, externalizing YSR score, total YSR score, internalizing CBCL score, externalizing CBCL score, and total CBCL score acted as statistically significantly predictors of GPA and academic performance scale.

Six backward elimination regression analyses were completed to address the research question asking if gender, age groups, parental education, and the independent variables acted as statistically significant predictors of internalizing YSR score, externalizing YSR score, total YSR score, internalizing CBCL score, externalizing CBCL score, and total CBCL score. Additionally, the multiple linear regressions, through the standardized beta weights, addressed the research question related to which ones of these three predictors carries more weights in the prediction of these dependent variables.

The third research question of this study is investigating what the link between parent-reported and adolescent self-reported levels of emotional and behavioral problems among Turkish-American adolescents is. The purpose is to uncover the relationship or potential pattern between YSR and CBCL and to find out if there is a pattern between them.

Pearson product-moment correlation coefficients and paired sample T test were computed to assess three relationships (internalizing YSR vs internalizing CBCL, externalizing YSR vs externalizing CBCL and total YSR and total CBCL). Pearson's r indicates the degree of association between two variables scored for sets of individuals. Paired sample T tests helped to understand if the YSR scores and CBCL scores are

statistically significantly different from each other. Because there are 90 items overlapping on both YSR and CBCL, only these items were used in the correlation analyses.

     Descriptive statistics were examined throughout the aforementioned analyses to display major characteristics of the variables. The alpha level of .05 was used as the criterion to determine statistical significance.

CHAPTER IV

RESULTS

The purpose of the present study was: (a) to identify the effects of internalizing

problems, externalizing problems, and totals problems of YSR (adolescent reported survey)

and CBCL (parent reported survey) on GPA and academic performance scales obtained from

the parent-reported survey; (b) to identify the effects of gender and age groups (11 to 14 vs

15 to 18) on internalizing problems, externalizing problems, and both types of problems

combined for the YSR and CBCL; (c) to uncover the relationship or potential pattern between

YSR and CBCL.

The following research questions were addressed:

(1) What relationships exist between academic outcomes and parent-reported and

adolescent-reported emotional and behavioral problems?

(2) What are the effects of gender, parental education, and age on the mean levels of

adolescent self-reported and parent-reported emotional and behavioral problems?

(3) What is the link between parent-reported and adolescent self-reported levels of

emotional and behavioral problems among Turkish-American adolescents? Is there a

pattern of agreement?

In order to address the purpose and answer the research questions, collected data was

entered, screened, and analyzed. Results from data analyses were obtained and are presented

in this chapter.

Preliminary Analyses

Before major analyses were conducted, descriptive statistics and preliminary analyses

were conducted to determine the characteristics of the variables.

Descriptive Statistics

The sample size of this study was 75. For nominal variables of gender, age group, and social economic status, the frequencies and percentages are presented in Table 1. Of all 75 participants, about half (52%) were female and half (48%) were male. The average age of the participants was 13.39 with a standard deviation of 2.36. Based on the age groups, 62.7% of them were in 11 to 14 age group and 37.3% of them were in 15 to 18 age group. 53.3% of the participants' parents graduated from college and 38.7% of the parents had a graduate school degree. 2.7% of the parents had a partial high school educational level and 5.3% of them graduated from community college. To get a reasonable group sample size; partial high school, partial college (community college), and college graduate levels were combined under the title of "college" in the further analyses.

Continuous Variables

There are eight continuous variables in this study. As mentioned in Chapter III, the obtained scores from YSR and CBCL surveys are assessed in two broad categories, and summed with each plus a total score. Six of them were these dimensions obtained from both of the surveys: internalizing YSR, externalizing YSR, total YSR, internalizing CBCL, externalizing CBCL, and total CBCL scores. The other continuous variables are GPA and academic performance. The GPA's (out of 4) are ranged between 2.5 and 4.00 with a mean of 3.66 and a standard deviation of .37. The academic performance of the parent reported survey ranges from 0 to 6. For this sample, the minimum score is 2, and the maximum score is 6 with a mean of 5.07 and a standard deviation of 1.08. The means and standard deviations are presented in Table 2.

Table 2. *The means and standard deviations of continuous variables*

	M	SD	Minimum	Maximum
Internalizing YSR	14.68	9.60	1	40
Externalizing YSR	5.60	4.99	0	23
Total YSR	20.25	22.77	0	95
Internalizing CBCL	8.77	6.20	1	31
Externalizing CBCL	8.23	4.93	0	29
Total CBCL	24.55	16.28	4	85
GPA	3.66	0.37	2.5	4
Academic Performance	5.07	1.08	2	6

Group Differences

Six independent-sample t tests were conducted to compare the means of males and females on the emotional and behavioral problems of the adolescents. There was not a statistically significant difference on the internalizing YSR scores for females and males at the $p<.05$ level, [t (73) = -1.121, $p=.266$, $d= -0.26$]; on the externalizing CBCL, [t (65.43) =-.769, $p=.445$, $d= -0.19$]; or on the total CBCL score, [t (63.41) =-1.452, $p=.151$, $d= -0.36$]. However, female adolescents rated their externalizing YSR scores significantly higher than males with a large effect size [t (58.19) = -2.88, $p=.006$, $d= -0.76$]. Also, statistically significant differences were found for the total YSR score with a large effect size, [t (69.05) = -3.533, $p=.001$, $d= -0.92$] and for the internalizing CBCL score with a medium effect size, [t (59.28) = -2.16, $p=.035$, $d= -0.56$]. Namely, the female adolescents indicated more problems than males in total problems, and the parents thought that females have more internalizing problems than males. The means, standard deviations, T test, and significance level are presented in Table 3.

Table 3. *Gender effect on the Problem Scores*

	Groups							Cohen's
	Male (N=36)		Female (N=39)					
	M	SD	M	SD	df	t	Sig.	d
Internalizing YSR	13.39	10.65	15.87	8.48	73.00	-1.121	.266	-0.26
Externalizing YSR	3.99	3.08	7.08	5.91	58.19	-2.880	.006	-0.76
Total YSR	11.42	14.05	28.40	26.19	69.05	-3.533	.001	-0.92
Internalizing CBCL	7.25	4.02	10.21	7.46	59.28	-2.158	.035	-0.56
Externalizing CBCL	7.78	3.75	8.64	5.83	65.43	-0.769	.445	-0.19
Total CBCL	21.78	11.75	27.10	19.36	63.41	-1.452	.151	-0.36

Six independent samples t tests were conducted to compare the means of the two age groups (11 to 14 vs 15 to 18) in relation to the emotional and behavioral problems of the adolescents. There was not a statistically significant difference in the means of the internalizing YSR score at the p<.05 level, [t (73) = .521, *p*=.605, *d*=.12]. However; these two age groups differed significantly for the externalizing YSR score with a moderate effect size [t(69.9) =2.731, *p*=.008, *d*=.65]; for the total YSR score with a large effect size, [t(69.05) =3.837, *p*<.001, *d*=.92]; for the internalizing CBCL score with a large effect size, [t(69.32)=3.503, *p*=.001, *d*=.84]; for the externalizing CBCL score with a moderate effect size, [t(70.54)=2.404, *p*=.019, *d*=.57]; and for the total CBCL score with an almost large effect size, [t(68.99)=3.236, *p*=.002, *d*=.78]. These results suggest that both parents and adolescents estimated that the adolescent whose ages are between 15 and 18 have lower EBT's than adolescents at the ages of 11 to 14 on every scale except the internalizing YSR score. The means, standard deviations, T test, and significance level are presented in Table 4.

Table 4. *Age effect on the Problem Scores*

	Groups							
	11 to 14 (N=47)		15 to 18 (N=28)					Cohen's
	M	SD	M	SD	df	t	Sig.	d
Internalizing YSR	15.15	9.62	13.93	9.69	73.00	0.521	.605	0.12
Externalizing YSR	6.60	5.75	3.92	2.68	69.90	2.731	.008	0.65
Total YSR	26.43	25.53	9.88	11.51	69.05	3.837	.000	0.92
Internalizing CBCL	10.34	7.01	6.18	3.20	69.32	3.503	.001	0.84
Externalizing CBCL	9.11	5.70	6.75	2.74	70.54	2.404	.019	0.57
Total CBCL	28.34	18.60	18.18	8.37	68.99	3.236	.002	0.78

Six independent sample t tests were conducted to compare the means of parental education on the dependent variables, internalizing YSR score, externalizing YSR score, the total YSR score, internalizing CBCL score, externalizing CBCL score, and the total YSR score. As mentioned before, partial college and college levels were combined under the title of "college" to get a reasonable group sample size; the second educational group was partial

high school. The new parental education variables have two levels: college graduated or not. These two levels do not differ significantly for the internalizing YSR score [t(73)=-.92, p=.361, d= -0.22], the externalizing YSR score [t(73) =-298, p=.767, d= -0.07]; for the total YSR score, [t(73) =-.388, p=.699, d= -0.09]; for the internalizing CBCL score, [t(73)=.717, p=.475, d=0.16]; and for the total CBCL score, [t(73)=1.91, p=.06, d= 0.43]. However; the externalizing CBCL score produced a statistically significant difference for the means of two levels with a medium effect size, [t(73)=2.358, p=.021. d=.55]. These results suggest that parents who have a graduate school degree estimated that their children have lower externalizing emotional and behavioral problems than the adolescents whose parents have a standard college degree. The means, standard deviations, T test, and significance level are presented in Table 5.

Table 5. *Parental Education effect on the Problem Scores*

	Groups							
	College (N=46)		Graduate (N=29)					
	M	SD	M	SD	df	t	p	Cohen's d
Internalizing YSR	13.87	9.52	15.97	9.75	73	-0.920	0.361	-0.22
Externalizing YSR	5.46	4.67	5.81	5.53	73	-0.298	0.767	-0.07
Total YSR	19.43	20.41	21.54	26.42	73	-0.388	0.699	-0.09
Internalizing CBCL	9.19	5.49	8.14	7.24	73	0.717	0.475	0.16
Externalizing CBCL	9.26	4.79	6.59	4.79	73	2.358	0.021	0.55
Total CBCL	14.72	14.72	20.13	17.86	73	1.828	0.060	0.43

Comparison of the Sample to the Reference Group

The developers of YSR and CBCL created a T-scale score table to allow comparison with children from the same gender and age. These t-scores are transformed from raw scores derived from problem scores based on a normative sample. The sample consisted of 1,753 nonreferred adolescents. "Nonreferred" means that the adolescents did not receive professional help for behavioral/emotional problems, substance use, or developmental problems in the preceding 12 months. This sample of nonreferred children provided the basis

for the norms with which the scale scores of individual children could be compared to identify scores that are in the normal, borderline, or clinical range. T-score cut-off points for broad-band scales determine the degree of deviance from normality, categorizing children into three groups as clinical, borderline, or non-clinical (Bordin et al., 2013). The cutoff T-score of clinical range is 63. If the T-score is above 63 (98th to 100th percentile), it means that this group of children have higher emotional and behavioral problems than the norm group, and they are in clinical range. The borderline range spans T-scores of 60 to 63 (84th to 90th percentile). If the T-scores are below 60 (0 to 93rd percentile), it means that the adolescent is in the normal range. These scores are assessed in two subgroups: age and gender. The age of 11 and 12-18 are assessed separately, and these two groups are investigated separately for males and females. The raw score means of EBP for 11-year-old Turkish-American adolescents indicate that only internalizing problems of 11-year-old girls were found to be in the borderline range based on their parents' reports. This result indicates that the 11-year-old girls have higher EBP than approximately 90% of the girls in the normative sample. The means, standard deviations, T-scores, and decision are presented in Table 6. The other CBCL and YSR scores for the sample are all in normal range which are presented in Tables 7 and 8.

Table 6. *The means of 11 year-old males and females on CBCL EBP*

	Groups							
	Male(N=8)				Female (N=17)			
	M	SD	T	Decision	M	SD	T	Decision
Internalizing CBCL	6.38	3.1	50	Normal Range	14.06	8.95	63	Borderline Range
Externalizing CBCL	6.75	1.7	50	Normal Range	11.12	7.36	60	Normal Range
Total CBCL	19.7	5.6	45	Normal Range	36.71	24.15	60	Normal Range

Table 7. *The means of over 12 years-old males and females on CBCL EBP*

	Groups							
	Male(N=28)				Female (N=22)			
	M	SD	T	Decision	M	SD	T	Decision
Internalizing CBCL	7.5	4.3	55	Normal Range	7.23	4.3	52	Normal Range

Externalizing CBCL	8.07	4.2	54	Normal Range	6.73	3.4	51	Normal Range
Total CBCL	22.4	13	48	Normal Range	19.67	19.7	48	Normal Range

Table 8. *The means of over 11 years-old males and females on YSR EBP*

	Groups							
	Male(N=36)				Female (N=39)			
	M	SD	T	Decision	M	SD	T	Decision
Internalizing YSR	13.4	11	55	Normal Range	15.9	8.5	55	Normal Range
Externalizing YSR	3.9	3	49	Normal Range	7.1	5.9	48	Normal Range
Total YSR	11.4	14	40	Normal Range	28.4	26.2	45	Normal Range

Research Question One

Research question one examined the relationship between academic outcomes of the adolescents and their emotional and behavioral problems. The "academic outcomes" construct was measured by two measures: GPA and academic performance scale obtained from the parent-reported survey. Also, these two measures acted as the dependent variables of the analyses in this section. Because the dependent variables are two measures obtained from one construct, they are linearly related. Therefore; the results might be biased because of the linearity. Four multiple linear regression analyses were completed to address the

A. **The dependent variable: GPA**

The independent variables: Internalizing YSR score, externalizing YSR Score, internalizing CBCL score, and externalizing CBCL score

Results indicate that the independent variables do not predict the GPA to be statistically significant, R=.331, p=.084. The R^2 indicates that approximately 11% of the variance in the dependent variable can be accounted for by its linear relationship with problem scales. The means, standard deviations, correlation coefficients, standardized beta weights, T test, and P values in the equation are presented in Table 9.

Table 9. *Regression analysis summary for variables predicting GPA*

	M (SD)	Correlation to GPA	Beta Weights	t	*p*
GPA	3.66(.37)				
Internalizing YSR	14.68(9.6)	0.143	0.158	1.058	0.294
Externalizing YSR	5.6(4.99)	0.060	0.089	0.660	0.511
Internalizing CBCL	8.79(6.19)	-0.064	0.034	0.151	0.881
Externalizing CBCL	8.23(4.93)	-0.251	-0.333	-1.902	0.060

B. **The dependent variable: GPA**
The independent variables: Total YSR score and Total CBCL score

Results showed that, together, total YSR score and total CBCL score statistically

significantly predict GPA, R=.332, p=.015. R^2 indicates that 11% of the variance in the GPA

is explained by their linear relationship with the total YSR score and total CBCL score. A

comparison of the standard beta weights indicates that total CBCL score predicts the

dependent variable at a statistically significant level<.05, B==-.367, p=.005 better than total

YSR, B=.268, p=.039. Based on these results, it appears that if a parent scores lower total

problems (the sum of internalizing and externalizing problems) on the emotional and

behavioral problems of his child, the child expected to earn higher GPA. However, the

opposite is true for Total YSR. The more emotional and behavioral problems is expected

from the adolescents who have higher GPA for student ratings. The means, standard

deviations, correlation coefficients, standardized beta weights, T test, and P values in the

equation are presented in Table 10.

Table 10. *Regression analysis summary for variables predicting GPA (2)*

	M (SD)	Correlation to GPA	Beta Weights	t	*p*
GPA	3.66(.37)				
Total YSR	20.25(22)	0.089	0.268	2.101	0.039
Total CBCL	24.55(16)	-0.236	-0.367	-2.882	0.005

C. **The dependent variable: Academic Performance Scale**

The independent variables: Internalizing YSR score, externalizing YSR Score,

internalizing CBCL score, and externalizing CBCL score

Results showed that academic performance scale is not predicted by the independent variables, R=.255, p=.31. R^2 indicates that only 6.5 % of the variance in the academic performance scale is explained by their linear relationship with the predictor variables. The means, standard deviations, correlation coefficients, standardized beta weights, T test and P values in the equation are presented in Table 11.

Table 11. *Regression analysis summary for variables predicting Academic Performance*

	M (SD)	Correlation to AP	Beta Weights	t	*p*
Academic Performance	5.07(1.08)				
Internalizing YSR	14.68(9.6)	-0.171	-0.178	-1.163	0.249
Externalizing CBCL	5.6(4.99)	0.107	0.226	1.638	0.106
Internalizing CBCL	8.79(6.19)	-0.085	-0.136	-0.588	0.558
Externalizing CBCL	8.23(4.93)	-0.017	0.046	0.256	0.798

D.   The dependent variable: Academic Performance Scale

The independent variables: Total YSR score and Total CBCL score

Results showed that academic performance scale is not predicted by the predictor variables, R=.154, p=.423. R^2 indicates that only 2.4 % of the variance in the dependent variable is explained by their linear relationship with the predictor variables. The means, standard deviations, correlation coefficients, standardized beta weights, T test and P values in the equation are presented in Table 12.

Table 12. *Regression analysis summary for variables predicting Academic Performance(2)*

	M (SD)	Correlation to AP	Beta Weights	T	*p*
Academic Performance	5.07(1.08)				
Total YSR	20.25(22)	0.073	0.148	1.111	0.270
Total CBCL	24.55(16)	-0.083	-0.155	-1.162	0.249

Research Question Two

Six backward elimination regression analyses were completed to address the research question asking if gender, age group, parental education, and the independent variables acted

as statistically significant predictors of the internalizing YSR score, externalizing YSR scores, total YSR scores, internalizing CBCL scores, externalizing CBCL scores, and total CBCL scores. Additionally, the multiple linear regressions, through the standardized beta weights, addressed the research question related to which ones of these three predictors carries more weights in the prediction of these dependent variables.

A.   The dependent variable: The Internalizing YSR Scores

All three independent variables- gender, age group, and parental education; were all entered in the initial model, (F=.693, p=.559). An overall R^2 of .028 was obtained, which indicated that three predictive variables together accounted for approximately 3% of the variation in the internalizing YSR score. The second (F=1.001, p=.373) and third rounds (F=1.257, p=.266) of eliminations did not produce a statistically significant model. The results indicate that gender, age groups, and parental education together do not predict the internalizing YSR scores to be statistically significant.

B.   The dependent variable: The Externalizing YSR Score

Results showed that externalizing YSR scores are predicted statistically significant by gender, age groups, and the levels of parental education together in the initial model, R=.367, p=.016. R^2 indicates that approximately 14% of the variance in the dependent variable is explained by their linear relationship with the predictor variables. In the second round of elimination, the model eliminated the parental education (β =.035, p=.755) and retained gender and age groups, which are contributing statistically significantly. The R^2 change of -.001 from the initial model to the second model was not significant (p=.755), indicating the elimination of parent education did not jeopardize the ability of model in prediction. 13.3% of the total variance in the externalizing YSR score could be accounted for by the remaining two variables in the final model. Table 13 presents the results from the multiple regression procedure.

Table 13. *Regression analysis summary for variables predicting Ext YSR*

	Correlation to Ext YSR	Beta Weights	t	*p*
Gender	-0.35	0.264	2.326	0.023

The above table indicated that only gender contributes significantly in predicting the dependent variable, because the p-values of this predictor was smaller than .05. Also clear from the results is that gender (β =.264) was a better predictor than age group (β =-.195). The results suggest that females have more externalizing problems than males.

C.   The dependent variable: The Total YSR Score

The initial model indicates that gender, age groups, and the levels of parental education together predict the total YSR score statistically significantly, R=.463, p<.001. The R^2 indicates that approximately 22% of the variance in the dependent variable can be accounted for by its linear relationship with the predictor variables. In the second round of elimination, the model eliminated the parental education (β = -.049, p=.645) and retained gender and age groups which are contributing statistically significantly. The R2 change of -.002 from the initial model to the second model was not significant (p=.645), indicating the elimination of parental education did not jeopardize the ability of model in prediction. 21.2% of the total variance in the total YSR score could be accounted for by the remaining two variables in the final model. Table 14 presents the results from the multiple regression procedure.

Table 14. *Regression analysis summary for variables predicting Total YSR*

	Correlation to Total YSR	Beta Weights	t	*p*
Gender	0.0375	0.305	2.824	0.006
Age group	-0.0354	-0.277	-2.564	0.012

The above table showed that each variable contributes significantly in predicting the dependent variable, because the p-values of the two predictors were all smaller than .05. Also clear from the results is that gender (β =.305) was a better predictor than age group (β = -

.277). The results suggest that females have more total YSR problems than males. Also, the negative value of an age group's coefficient indicated that age group 2 (15-18) has less total YSR score than the age group 1(11-14). It means that the adolescents whose ages are between 11 and 14 have higher emotional and behavioral problems than the ones aged from 15 to 18, as based on their parents' reported survey.

D.   The dependent variable: The Internalizing CBCL Score

The model indicates that gender, age groups, and the levels of parental education together predict the internalizing CBCL score statistically significantly, R=.373, p=.014. The R^2 indicates that approximately 14% of the variance in the dependent variable can be accounted for by its linear relationship with the predictor variables. After two rounds of elimination, the model retained only age group (β =-.325, p=.004), which is contributing statistically significantly. The R^2 change of -.026 from the initial model to the third model was not significant (p=.142), indicating the elimination of parent education and gender did not jeopardize the ability of model in prediction. Approximately 11% of the total variance in the internalizing CBCL score could be accounted for by age group in the final model. The negative value of age group's coefficient indicated that the age group 2 (15-18) has less internalizing CBCL score than the age group 1(11-14). It means that the parents of the adolescents whose ages are between 11 and 14 estimated higher internalizing emotional and behavioral problems than the ones aged from 15 to 18. The standard deviations, correlation coefficients, standardized beta weights, T test, and P values in the equation are presented in Table 15.

Table 15. *Regression analysis summary for variables predicting Int CBCL*

	Correlation to Int CBCL	Beta Weights	t	*p*
Age group	-0.327	-0.327	-2.956	0.004

E.   The dependent variable: The Externalizing CBCL Score

Results showed that externalizing CBCL score is predicted statistically significantly by gender, age groups, and the levels of parental education together in the initial model, R=.346, p=.028. R^2 indicates that only 12 % of the variance in the dependent variable is explained by their linear relationship with the predictor variables. In the second round of elimination, the model eliminated gender (β= -.05, p=.667) and retained parent education and age groups which are contributing statistically significantly. The R^2 change of -.002 from the initial model to the second model was not significant (p=.667), indicating the elimination of gender did not jeopardize the ability of the model in prediction. Approximately 12% of the total variance in the externalizing CBCL score could be accounted for by the remaining two variables in the final model. Table 16 presents the results from the multiple regression procedure.

Table 16. *Regression analysis summary for variables predicting Ext CBCL*

	Correlation to Ext CBCL	Beta Weights	t	*p*
Parent education	0.266	0.252	2.269	0.026

The above table showed that only parent education (β =.252) contributes significantly in predicting the dependent variable. The results suggest that the adolescents whose parents have college degrees have more externalizing problems than the adolescents whose parents have graduate school degrees.

F.   The dependent variable: The Total CBCL Score

The initial model indicates that gender, age groups, and the levels of parental education together predict the total CBCL score statistically significantly, R=.378, p=.012. The R^2 indicates that approximately 14% of the variance in the dependent variable can be accounted for by its linear relationship with the predictor variables. In the second round of elimination, the model eliminated gender (β=.109, p=.343) and retained age groups (β=.-291,

p=.01), which is contributing statistically significantly, and also kept parental education

(β=.199, p=.075) which is not contributing statistically significant. The β change of -.011

from the initial model to the second model was not significant (p=.343), indicating the

elimination of gender did not jeopardize the ability of model in prediction. Approximately

13% of the total variance in the total CBCL score could be accounted for by the remaining

two variables in the final model. Table 17 presents the results from the multiple regression

procedure.

Table 17. *Regression analysis summary for variables predicting Total CBCL*

	Correlation to Total CBCL	Beta Weights	t	*p*
Age group	-0.304	-0.291	-2.642	0.01

The above table showed only the age group variable contributes significantly in

predicting the dependent variable, because its p-value was smaller than .05. The negative

value of an age group's coefficient indicated that the age group 2 (15-18) has less total CBCL

score than the age group 1(11-14). It means that the parents of the adolescents whose ages

are between 11 and 14 estimated higher internalizing emotional and behavioral problems than

the ones aged from 15 to 18.

Research Question 3

The third research question of this study is what the link between parent-reported and

adolescent self-reported levels of emotional and behavioral problems among Turkish-

American adolescents is. The purpose is to uncover the relationship or potential pattern

between YSR and CBCL and to find out if there is pattern between them.

Pearson product-moment correlation coefficients and paired sample T tests were

computed to assess three relationships (internalizing YSR vs internalizing CBCL,

externalizing YSR vs externalizing CBCL, and total YSR and total CBCL). Pearson's *r*

indicates the degree of association between two variables scored for sets of individuals. Paired sample T tests helped to understand if the YSR scores and CBCL scores are statistically significantly different from each other. Because there are 90 items overlapping on both YSR and CBCL, only these items were used in the correlation analyses.

A.   Pearson Product-Moment Correlation Coefficients

The Pearson correlation coefficients, which can be seen in Table 18, indicate that there are moderate positive correlations between internalizing YSR and internalizing CBCL ($r = .588$, $n=75$, $p<.001$), externalizing YSR and externalizing CBCL ($r = .329$, $n=75$, $p=.004$) and total YSR and total CBCL ($r = .493$, $n=75$, $p<.001$).

Table 18. *Correlations between CBCL and YSR scores*

Measure	Int YSR	Ext YSR	Tot YSR	Int CBCL	Ext CBCL	Tot CBCL
Internalizing YSR	-					
Externalizing YSR	.339**	-				
Total YSR	.462**	.861**	-			
Internalizing CBCL	.588**	.528**	.656**	-		
Externalizing CBCL	.194	.329**	.304**	.716**	-	
Total CBCL	.371**	.420**	.493**	.893**	.917**	-

**.Correlation is significant at the 0.01 level (2-tailed).

B.   Paired Sample T Test

Three paired sample T tests were conducted to compare YSR scores and CBCL scores. There was a significant difference in the scores for internalizing YSR (M=14.68, SD=9.6) and internalizing CBCL (M=8.79, SD=6.2) scores; [t (74) =6.481, p < 0.001]. Also, there was a significant difference in externalizing YSR (M=5.6, SD=4.99) and externalizing CBCL (M=8.23, SD=4.93) scores [t (74) =-3.823, p < 0.001]. However, there is no significant difference in total YSR (M=20.25, SD=22.77) and total CBCL (M=24.55, SD=16.28); [t (74) =-1.812, p=.074].

These results suggest that parents and adolescents do not have agreement on the internalizing and externalizing emotional and behavioral problems of the adolescents. But,

they did not score total problems significantly different from each other. Table 19

summarizes the results of paired sample T test.

Table 19. *Paired Sample T Test*

	Mean Difference	SD	df	t	*p*
Pair 1 Internalizing YSR & Internalizing CBCL	5.89	7.87	74	6.481	0.00
Pair 2 Externalizing YSR & Externalizing CBCL	-2.63	5.68	74	-3.883	0.00
Pair 3 Total YSR & Total CBCL	-4.30	20.54	74	-1.812	0.074

CHAPTER V

DISCUSSION

The purpose of the present study was: (a) to identify the effects of internalizing problems, externalizing problems, and total problems of YSR (adolescent reported survey) and CBCL (parent reported survey) on the students' GPA and academic performance scale obtained from the parent-reported survey; (b) to identify the effects of gender (male vs female), parental education level (college degree vs graduate school degree), and age groups (11-14 vs 15-18) on internalizing problems, externalizing problems, and both types of problems combined on the YSR and CBCL; (c) and to uncover the relationship or potential pattern between YSR and CBCL.

The internalizing problems were assessed by summing the scores of withdrawal/depression syndromes, somatic complaints, and anxiety/depression syndromes; while the externalizing problems were assessed by summing the scores of delinquent behavior and aggressive behavior. A total problem score was computed by summing the externalizing scale, internalizing scale, social problems scale, and thought problems scale.

The sample used for this study consisted of seventy-five Turkish-American adolescents between the ages of eleven to eighteen years old. The Youth Self-Report survey (Achenbach & Rescorla, 2001) was administered to each participant. Parent or guardian scored the Child Behavior Checklist (Achenbach & Rescorla, 2001) to report their child's emotional and behavioral problems. The collected data was analyzed using a series of statistical procedures as described in the previous chapter, and all differences were tested at an alpha level of significance of .05. This chapter summarizes and discusses the findings and presents implications and recommendations for future research conducted in this field.

Preliminary Analyses

Preliminary analyses showed that mean for the total CBCL behavioral problem was 24.5 with a standard deviation of 16.28. Rescorla et al. (2007) reported that the CBCL means calculated from the participants in thirty-one countries ranged from 13.1 for Japan to 34.7 for Puerto Rico. These researchers indicated that the mean for the United States (23) was within 1 SD (5.7) of the average mean of 22.5, while the mean for Turkey was on the exact average with the mean of 22.5. Turkish-Americans' score was slightly higher than students solely from either the United States or Turkey, but at the same time the means for all three groups were similar and close to the average. In this study, Turkish-American adolescents ranked within the normal range according to the data provided by the CBCL, and statistically speaking, were mentally healthy and well.

Bengi-Arslan and et al. (1997) conducted a study to compare the parent-reported problem behaviors and competencies in Turkish immigrants, Turkish native youth, and Dutch native youth. Immigrant children (M=28.97) scored higher than Dutch children (M=20.27), and no significant difference was found between Turkish natives (M=25.57) and Turkish immigrants (M=28.97), even though Isik-Ercan (2010) revealed that American Turks had both the higher level of education and the higher average SES (Isik-Ercan, 2010), and the previous literature pointed out a negative relationship between SES and EBP (Ataca & Berry, 2002; Sonego et al., 2013). The current study found that Turkish-American adolescents in this sample had fewer mental and behavioral problems compared to the previous sample of Turkish immigrants in Europe. However; this sample was uniformly high SES and educated, which limits the comparability.

The developers of YSR and CBCL created a t score table to be used for comparison of the children from the same gender and age (Achenbach &Rescorla, 2001). They provided CBCL scores in two subgroups: age and gender in their manual. On the YSR scores, all of the

groups (gender and age) were in the normal range. On the CBCL, the scores of Turkish-American youth all fell into the normal range, except for one group on the internalizing CBCL problems scale – eleven year-old females. The 11 year-old girls had higher EBP than approximately 90% of the girls in the normative sample, and they scored close to the clinical range. Also, the parents reported a higher rate of internalization for these female youth than any other group in the study. The score for internalizing problems was calculated from the questions related to depression, somatic complaints, and anxiety symptoms.

These findings had a number of plausible explanations: one explanation could be that the adolescents themselves actually had lower levels of emotional and behavioral problems; or lower scores in some societies may be caused by the parents' or adolescents' reluctance to report problems and behavioral symptoms. Similarly, the societal tendencies in Asian cultures caused a greater concern with self-presentation than the societal tendencies in Euro-American societies (Yabuuchi, 2004). Turkish people might have favored this self-presentation philosophy because of Turkey's close borders with both eastern and western cultures. However, Turkish- American adolescents had significantly fewer problems than Turkish-European adolescents. Its explanation could be a factor eliminating the bias that eastern cultures do not report their problems. Even though Turkish-Europeans and Turkish-Americans shared the same roots, they reported their problems differently.

Bengi-Arslan and et al. (1997) concluded there was a tendency among Turkish parents, whether living in Turkey or any other country, to score their children as being more anxious and depressed than the adolescents actually are. This inflated scoring was often about the higher expectations and thresholds that the parents placed upon their children (Isik-Ercan, 2010). In this study, the parents only scored eleven years-old girls as suffering from internalizing problems. An eleven-year-old girl may very well be under the effects of puberty, and the physical and emotional changes in her may cause the parents to exaggerate

the situation and list the girls as suffering from internalizing problems. The parents might possibly be comparing this critical age of their girls within the boundaries of their home culture; however, something to keep in mind is that these girls are not only Turkish, but also Turkish-American. The new culture might have been affecting the parents' opinions. The result might also be a true estimation of these girls actually experiencing a higher rate of problems than the rest of the adolescent groups. (Murad et al., 2004).

Research Question One

The first research question examines the relationship between academic outcomes of the adolescents and their emotional and behavioral problems. The "academic outcomes" construct was assessed through two variables: GPA and academic performance scale obtained from the parent-reported survey. Four multiple linear regression analyses were computed to address the research question if internalizing YSR score, externalizing YSR scores, total YSR scores, internalizing CBCL scores, externalizing CBCL scores, and total CBCL scores acted as statistically significant predictors of the adolescents' GPA and academic performance scale.

Results indicated that only the total YSR score and total CBCL score statistically significantly predicted the GPA score ($\beta = 0.27$ and $\beta = -0.37$). In these results, 11% of the variance in the GPA was explained by their linear relationship with the total YSR score and total CBCL. The total CBCL score predicted the dependent variable at a statistically significant level $<.05$, better than total YSR. Considering these results, it appeared that if a parent scored lower total problems on the emotional and behavioral problems for his child, the child was expected to achieve a higher GPA. At the same time, the higher the YSR score a child had, the higher his GPA score was.

The academic performance was not predicted by any of the predictor variables. Even though the negative relationship between academic outcomes and emotional and behavioral

problems was expected (Arzubiaga, Nogueron & Sullivan, 2009), the result of higher YSR score accompanied with the higher GPA for adolescents were not expected. This could potentially be because the more successful students were more actively and psychologically involved in school and homework, therefore they had more problems. This could be simply because of their extensive mental and emotional engagement with school related issues. The other explanation is that they might be more adjusted to the community and be more aware that they are different from native peers, or even be more of a perfectionist by nature and under stress to do better at school (Lee and et al., 2010). Another possibility might be that the adolescents get along well with teachers, but they have ill behaviors towards the class.

There might be other potential explanations for the positive correlation between higher YSR score and higher GPA for adolescents. Total scores were computed by summing the internalizing, externalizing, social competence, and thought problems. Although the internalizing and externalizing problems did not predict GPA significantly, the total scores did. The differences were more in the social and thought problems categories. One potential explanation of these results might be that all Turkish-American adolescents spoke Turkish at home, and they mostly do not learn English until they reach the preschool age. This might be affecting their social and thought problem scores because these factors may prevent the children acculturate to their new environment (Bengi-Arslan et al., 1997). Additionally, the sub scores of EBP (internalizing and externalizing) could be not reliable measures or low variance in the variables might be causing this unreliability. In summary, trouble in school was a function of the total problems of internalizing, externalizing, social and thought problems.

Research Question Two

YSR Scores

The second research question explored the effects of gender, age group (11-14 vs 15-18) of the adolescents, and educational levels of the parents on the internalizing YSR scores, the externalizing YSR scores, total YSR scores, the internalizing CBCBL scores, the externalizing CBCL scores, and the total YSR scores. Results from six backward elimination regression analyses were completed to address the research question.

The results indicated that gender, age groups, and parental education together did not accurately predict the internalizing YSR scores; however, gender was a better predictor than age group for the externalizing YSR score and total YSR score for our sample. In total, gender and age groups could account for 13.3% of the total variance in the externalizing YSR score in the final model. In addition, the gender and age groups could account for 21.2% of the total variance in the total YSR score.

The results suggested that females had more externalizing and total YSR problems than males. The negative value of each age group's coefficient indicated that the second age group (15-18) had less externalizing and total YSR score than the first age group (11-14). The interesting conclusion was that parental education were not related to adolescent-reported emotional and behavioral problems. Having all high education limited this possible relationship.

Gender

Female adolescents had higher ratings on EBP than males on all of the broad categories of the survey in our sample, but only the externalizing problems and total YSR scores were statistically significantly different. Externalizing problems scores calculated by summing items related to both delinquency and aggression evaluation. According to these measurements, females had more problems than males in Turkish-American adolescents.

Based on the results, females scored in the aggressive symptoms area higher than the males. This was an unexpected discovery, because boys are typically expected to report more

instances of externalizing problems than girls based on the literature investigating EBP in immigrant samples. The research conducted on the emotional and behavioral disorders of immigrant adolescents indicated that girls tend to score higher in internalizing kinds of problems, especially between the ages of twelve to sixteen. Unlike them, boys tended to score higher on externalizing kinds of problems during that age range (Ataca, 2006; Bengi-Arslan et al., 1997; Bernstein et al., 1996, Birman et al., 2007, Kilimitis et al, 1994); however, on the sample taken for this study, the adolescent females had higher externalizing problems than the males.

Based on parent-reported EBP, girls experienced more problems than boys in three main categories, but only the externalizing CBCL showed a significantly different score. Essentially, parents reported that females had a higher proclivity for these kinds of problems than males do. This result was not expected based on the literature review mentioned earlier. The five top items that parents scored higher for their adolescents were about arguments, demanding a lot of attention, being disobedient at home, being stubborn and having sudden changes in mood or feelings. The means of these items, which were about physically hurting someone, were close to zero. This indicates that parents think that their girls have relational aggression problem. It might be an explanation why girls have higher externalizing problems than boys because parents generally are more tolerant to the externalizing problems of their boys. However, they expect their girls to be more peaceful, respectful and silent in Turkish culture. This subjectivity might cause that girls gave higher externalizing problems in the parents-reported survey.

Females were more inclined to depression according to parent ratings – an internalizing problem, but the interesting fact was that female adolescents did not score higher than males on the internalizing problems scale where they self-rated themselves; however, the parents scored the female group as higher.

Age Groups

When dealing with the data based on age groups, the results suggested that both parents and adolescents reported the EBP's of the adolescent significantly different for the two age groups (11-14 vs 15-18) apart from the internalizing YSR score. Both the parents and the adolescents agreed that the adolescents whose ages were between fifteen and eighteen had lower EBP's than adolescents at the ages of eleven to fourteen; however, Achenbach et al. (2001) concluded that adolescents between the ages of fifteen and eighteen had a higher diagnosis rate of EBP than the adolescents who were between eleven and fourteen years old. In the literature reviewed, the consensus given was that as an adolescent's age increased, so did the somatic complaints, anxiety/depression, and internalizing problems scores (Achenbach & Rescorla, 2001).

This finding was similar to Bengi-Arslan and other authours (1997)' conclusion that the differences between immigrant Turkish children's internalizing problems rankings and Dutch children's scores were greater among younger than among older children. They explained this with the potential reason that the older the children became, the more they gained exposure to the influences outside of the family circle, which may, in turn, reduce their levels of internalizing problems.

CBCL Scores

The internalizing CBCL score and total CBCL score were predicted only by age group, and the coefficient weight showed that the parents of the adolescents whose ages were between eleven and fourteen estimated higher internalizing emotional and behavioral problems than the ones ranging from fifteen to eighteen years old. Age group could account for approximately 11% of the total variance in the internalizing CBCL score. Parental education was a better predictor than age group on the externalizing and total CBCL scores for our sample. Age groups and parental education could account for approximately 13% of

the total variance in the total CBCL score. In addition, the remaining age groups and parental education could account for 12% of the total variance in the externalizing CBCL score.

The results suggested that the adolescents whose parents had college degrees had more externalizing problems than the adolescents whose parents had graduate school degrees. The negative value of each age group's coefficient indicated that the second age group (15-18) had less externalizing CBCL scores than the first age group (11-14).

This result supported univariate results as well, and the interesting conclusion from these statistics was that gender has no effect on parent-reported emotional and behavioral problems. Perhaps the sample subjects had similar problems and behavioral issues with peers their own age; however, this study showed that gender had no effect or degree of these problems as seen from the parents' viewpoint.

Parental Education

The parental educational level of the majority of the participants in the study was predominantly at the level of a college degree. In the determination of the parental categorization, both the educational achievement of mother and father were taken into consideration. If the mother was a college undergraduate and the father earned a graduate school degree, the parental education level was categorized as having a college degree. 53.3% of the participants' parents graduated from college, and 38.7% of the parents had a graduate school degree. 2.7% of the parents had partial high school education, and 5.3% of them graduated from junior college. As mentioned earlier, partial college and college levels were combined under the title of "college" to get a sufficient group sample size. The new parental education levels combined into two categories: college or graduate school degree. The results obtained from the mean comparison of college vs graduate school on EBP suggested that parents who had graduate school degrees estimated that their children had lower externalizing

(delinquent and aggressive) emotional and behavioral problems than the adolescents whose parents had undergraduate college degrees.

Possibly this was because the families with graduate school degrees were more confident and more poised in social life, and the students did not feel the need to display aggressive mannerisms as mentioned earlier. From the parental viewpoint, possibly graduate school helped parents understand society much better and had more realistic expectations of their children, and they dispensed with the habit of comparing their own children with their childhood. Potentially, they also may be more adjusted to society, and the children are more adjusted to the society, so there was no need to be show externalizing problems (Bal & Arzubiaga, 2014).

Sonego et al. (2013) found that the lower level of parents' education directly correlated with higher CBCL. The level of education could affect the parents' expectations and attributions about their children's behaviors and symptoms and their understandings of the items on the checklist.

Research Question Three

The purpose of the research question was to uncover the relationship or potential pattern between YSR and CBCL; therefore, the relationships between these variables were investigated. Pearson's correlations suggested that there were modest positive correlations between internalizing YSR and CBCL, between externalizing YSR and CBCL, and between total YSR and CBCL.

Three paired samples T test results suggested that parents and adolescents were not in agreement on the internalizing and externalizing emotional and behavioral problems of the adolescents. The parents reported higher internalizing and externalizing emotional and behavioral problems than the adolescents did apart from the internalizing YSR score, but the two groups did not score the total problems significantly different from each other.

A potential reason for this may be that adolescents maintain fairly secretive private worlds, and thus the parents are not necessarily party to the inner workings of the children's minds, thus causing them to view the display of problems differently (Tehrani-Doost et al., 2003).

In the literature reviewed, YSR problem scores were generally higher than CBCL problem scores. In our study, this precedent was reversed. It might be because Turkish parents had higher expectations from their children and had a higher behavioral threshold. Also, immigrant adolescents tend to feel warier regarding reporting behaviors that may be viewed as destructive (Davies & McCelvey, 1998).

In eastern cultures, mental illness is highly stigmatized, and Turkish adolescents may be exposed to the concept that emotional and behavioral problems should be kept hidden to themselves (Ataca, 2006). Bengi-Arslan and et al. (1997) concluded that there was a tendency in Turkish parents, whether living in the Netherlands or in Turkey, to score their children as more anxious and depressed than the Dutch parents score their children. According to these results, Turkish parents living in Turkey and the Netherlands had very similar patterns of parent-reported behavioral functioning towards children in their home country. This may reflect the tendency of immigrant parents to preserve their culturally influenced perceptions of their children's mental and emotional functions, and the low threshold they perceive necessary for reporting them. This tendency might have cultural roots, and the parents studied in our sample might also have the same tendency. This might be why the parents of our sample did not report high scores for their children other than 11 year-old girls. The parents reported higher problems for this group than 11 year-old boys and other age groups of Turkish-American adolescents. This result decreased the possibility that Turkish people do not report their problems because of self-presentation.

Implications

67

The overall results indicated that being an immigrant child was not a risk indicator for psychiatric disorder or poor school performance. This can be a clue for immigrant studies: with higher SES and educational achievement, the negative side effects of immigration may be reduced; however, the study showed that eleven year-old girls were in a critical position based on the results of CBCL comparison chart. If they do actually have a higher tendency for emotional and behavioral problems, parents and educators should be more sensitive towards this particular group and support them during this critical period, and families should also have consciousness about puberty and its effects.

Limitations and Future Studies

The data collection was based on snowball sampling. In general, snowball samples cannot be considered a complete representation of any population. This is a threat to external validity in terms of population generalizability. Also, the lack of variance in the data was another threat to generalizability. The data collected came from the cultural centers and individuals who were very similar to each other in these ways: All parents were married with the other parent of their children, they were educated at an institution of higher learning, they had higher SES than average, and they were all Muslims. They were homogenous, probably because there was no way to access Turkish immigrant adolescents living in the United States apart from the ones at the cultural centers where they were all well connected and successful. In the future studies, the public schools might be contacted to access a more representative cross section of the Turkish-American adolescents living in big cities where there is a larger, more varied Turkish community.

The other issue of external validity was ecological generalizability. The parent sample had some common features: advanced education and a higher social economic status than the median of the country's SES level. To increase validity, the study should be conducted in different settings and with different ages of children.

Self-report was another limitation because it may cause response bias easily. As mentioned earlier, self-presentation of the family was a problem when dealing with Eastern-influenced culture, so to prevent this misrepresentation, a third party (such as teachers) should be added to the study. The need for self-presentation could cause honesty problems for parents and children, and tempt the need to present culturally and socially desirable answers rather than the truth. Also, the adolescents completed the survey under the same roof as their parents. They quite possibly could have felt the pressure to answer in a manner they deemed appropriate by their parents. For further studies, the adolescents should be separated from the parents when completing the survey. Also, the addition of a second parent to the survey would help glean more data and information. This time, only one parent of the adolescent should complete the survey.

Some descriptive analyses were conducted to compare the parent's and child's score reports. Then, the variables (age, parental education, and GPA) were explored to see their relationships with emotional and behavioral problems. Namely, the study covered a wide base rather than being a specific, exploratory study. Still, observing further differences on the dependent variables might be directly related to the independent variables. There might be some other unintended variables like language achievement, stressful life events, family structure, and acculturation of the parents, but because parsimony was important because of limited sources, only a few variables were explored. To increase the number of the variables, new instruments would need to be used. In this case, because of the samples' ages being between 11-18, multiple surveys would be too much for them to handle. If they get bored, the accuracy, reliability, and validity of the results could be affected.

Educational outcome was a construct which was measured by the GPA and academic performance scale obtained from the parent-reported survey. More variable ways to measure academic outcomes can be investigated in the future.

Moreover, a longitudinal study would be more feasible for these research questions, but because of the limited sources, that was not possible. To get deeper info, interviews and conducting multiple surveys over time would be more beneficial and glean greater amounts of accurate data. Interviews and observation would be necessary to understand adolescents better, because it might be hard for parents and youth to report their problems quantitatively. Although they think that there is a problem, they cannot rate the questionnaire based on the reality, but only on what their feelings can reflect at the time.

For future studies, these limitations should be eliminated to obtain results that will be more valid and accurate. Also, the norms of misbehaviors in Turkish society should be defined in detail because tolerance levels and expectations of the parents towards their boys and girls can be different because their roots are from Eastern culture. This might be one of the explanation of that parents reported higher problems than their children.

Conclusions

The overall results indicated that being an immigrant child was not a risk indicator for psychiatric disorder or poor school performance. This could be potentially because the sample students studied did not experience poverty or family dysfunction. They were from higher SES and well-educated families. Therefore, it may prevent these adolescents experience the negative effects of immigration because they have greater access to resources like as a higher level of education and greater language proficiency, which makes it easier to manage life in Western setting (Ataca and Berry, 2002).

The results of the present study failed to support the migration-morbidity hypothesis. Crul and Vermeulen (2003) compared the immigrant Turkish community and immigrant Moroccan community living in Western Europe and concluded that the Moroccan community in the host country had better educational outcomes than the Turkish community had because Moroccan communities seemed to be more open and individualized, although Turkish

communities kept their family closeness and strong social cohesion. Perhaps this structure made Turkish-American adolescents mentally healthy and academically successful. Their parents' SES and educational level gave a clue that they had acculturated or had been selected into their new society, and their peers became an open and accepting community.

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