SUICIDALITY AMONG TURKISH ADOLESCENTS: COMPARING

DURKHEIM'S AND TARDE'S PERSPECTIVES

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Suicidality is an important problem among adolescents. This study compares Durkheim's and Tarde's perspectives on suicide. While the Durkheimian perspective alleges that integration, regulation, and anomie play the major role on adolescent suicidality, Tarde's theory considers imitation as the most important factor affecting suicidality. Durkheim suggests that individuals with higher integration and regulation are less likely to commit suicide. Individuals with less integration and regulation, on the other hand, are more likely to experience anomie and higher suicidality. Tarde claims that individuals with suicidal peers are more likely to commit suicide. In particular, the effects of school integration, family integration, peer integration, religious integration, neighborhood integration, family regulation, anomie, and suicide imitation on adolescent suicidality in Turkey are examined using binary logistics regression in the current attempt. The results indicate that school integration, family integration, and religious integration have significant negative effects on adolescents' suicidality whereas suicide imitation has a positive effect. The results of the study are expected to help to prevention programs purposed at reducing suicidality among adolescents.

TABLE OF CONTENTS

LIST OF TABLES

CHAPTER 1

INTRODUCTION

Introduction

This study examines Durkheim's (1897) and Tarde's (1903) theories on suicide.

Durkheim argued that social factors such as integration, regulation, and anomie are the main

predictors of suicide. Tarde, on the other hand, acknowledges imitation as the most important

factor affecting suicide. In particular, the present study examines the effects of school

integration, family integration, peer integration, religious integration, neighborhood integration,

family regulation, anomie, and suicide imitation on adolescent suicidality in Turkey using binary

logistics regression.

The present study focuses on suicidality, not suicides. It is defined as a person's tendency

to commit suicide (Thorlindsson and Bjarnason 1998). That is, suicide ideation and suicide

attempts are examined instead of completed suicides. Modifying Durkheim's perspective in

some degree, this study does not consider suicides and suicide attempts as equal. However, both

are compatible with his theoretical framework (Bjarnason 1994). Although the association

between suicide ideation, suicide attempts, and completed suicides is not crystal clear (Hawton

1987), previous studies argued that studying suicidality is beneficial both theoretically and

practically (Kienhorst et al. 1990). Actually, Durkheim (1897) himself emphasized the

relationship between suicides and ongoing existence of behaviors with mortal risks. According to

him, both are reinforced by similar states of minds. Therefore, suicide studies should not be

restricted to lethal outcomes.

Suicidality among Adolescents

Suicidality is a serious problem among adolescents. It is one of the most common reasons

of deaths at young ages (Brown 2001). Although adolescents' problems regarding crime and delinquency have been extensively studied by researchers, suicidality among adolescents has not attracted the attention it deserves (Thorliondsson and Bernburg 2008). The current study will be beneficial as it examines suicidality using two competing theories: Durkheim's theory of deviance focusing on macro level social factors (integration, regulation, and anomie) and Tarde's theory of deviance focusing on micro level interpersonal imitation factors. Using two prominent sociological theories, the results of this study can provide a better understanding of suicidality among adolescents.

There has been some suicide studies in Turkey. These studies focused on the impact of migration on suicide (Akkaya-Kalayci et al. 2015), the relationship between familial bonds and suicide (Eskin 1995), and sex related differences in suicide (Oner et al. 2015). Also, there are some studies investigating the characteristics of suicidal adolescents in Turkey (Arslan et al. 2007; Goren et al. 2003). However, there is no study utilizing Durkheim and Tarde debate on suicide to explain suicidality among Turkish adolescents. This debate is important as it compares the impact of macro level social factors and micro level interpersonal factors on tendency to commit suicide among adolescents.

Durkheim's Perspective on Suicidality

Durkheim's *Le suicide: étude de sociologie* (1897) study has been the base for most research on suicide for more than a century now. Social order and deviance are examined in this masterpiece. The theoretical and methodological structure of today's sociology has been shaped by this work. So, his theory and findings are not only important for suicide studies but they are

also important for the field sociology in general. In particular, suicide studies have been under the overwhelming influence of Durkheim's ideas.

Durkheim emphasized the macro level factors rather than those at the micro level in his approach to understand social order and deviant behaviors. Although taking both macro and micro perspectives into consideration can provide more insight than focusing on only one of them, his main theoretical perspective promoted macro factors over micro. According to him, social groups and institutions experience a collective structure and they are more important than the individual level psychological factors to explain society. Also, Durkheim argues that these groups and institutions restrain individual actors in the forms of norms, common values, and social interactions and individual actors are not free from the social constraints on them (Thorlindsson and Bernburg 2004). Sawyer (2002) argues that Durkheim's macro approach has often been criticized as a result of the individual bias in American sociological theory. However, he actually supports the idea that social factors has a downward impact on the individuals. That is, Durkheimian approach does not ignore individual level utterly. Instead, he states that both macro and micro levels are important to understand social order even though he thinks the former has the priority.

Durkheim used aggregate level data and displayed a macro approach to suicide. This type of data analyzes the relationship between suicide rates and social factors such as economic growth, unemployment, familial bonds, and religion. Although he did not reject the role of individual level factors affecting suicidality he did not conduct any empirical studies with a micro perspective (Thorlindsson and Bernburg 2004).

For Durkheim, the main reason lies under suicide is the problem of social integration and regulation. That is, when individuals experience lack of social cohesion and regulative forces

3

they tend to have more suicidality. He suggested that the decreasing levels of integration and regulation in the industrial society caused the suicide rates to increase. This explanation can be seen as insufficient to explain suicide for recent times because it lacks the micro level imitation and interaction related factors. However, it is still very useful and continues to frame the main base for suicide studies.

Tarde's Perspective on Suicidality

While Durkheim (1897) emphasizes the importance of macro level social factors on suicidality and other forms of deviance, Tarde (1903) draw attention to the micro level suggestion and imitation factors. Actually, Durkheim did not reject the influence of imitation completely. However, he acknowledged that integration, regulation, and anomie factors are much more influential than imitation factors in terms of shaping deviant behaviors. Although Durkheim did not conduct empirical research on suicide at the micro level, his theory clearly recognized the role of micro level in suicide studies.

Tarde's main criticism about Durkheim's deviance theory is that social factors cannot solely affect individual's behaviors. He argued that some type of interpersonal interaction, communication, and imitation processes are needed to spread deviant behaviors. Although Tarde agrees that social factors are important to shape suicide behavior, he does not think that they are the only factors to determine such action. Another criticism made by Tarde is that social ties that Durkheim considers as preventive can actually spread suicidality and other deviant behaviors. This is an important contribution to the suicide literature because social ties among individuals can diffuse both positive and negative acts. According to Tarde, individualistic thoughts are increasing in the modern times. People are more interested in their personal satisfaction in every

4

aspect of their lives compared to the past. Thus, human beings are more likely to feel disappointed today than past when they are not able to fulfil such needs. Also, he asserts that the level of disappointment depends on the level of interaction and imitation among individuals. More interaction with others is likely to lead to greater disappointment for most people. When we think about the increasing space of social media and other forms of online interpersonal interaction in our lives in the recent times, we can expect that the validity of Tarde's approach can be even greater.

Purpose of the Study

The purpose of the current study is to determine the individual level factors that lead to suicidality using Durkheim's and Tarde's theories. In particular, this study is focused on how school integration, family integration, religious integration, neighborhood integration, family regulation, anomie, and imitation factors are related to suicidality among Turkish adolescents.

The present study includes both Durkheim's and Tarde's perspectives on suicidality. Instead of trying to decide which theory better explains suicide behavior, main objective is to utilize both approaches to provide a better understanding of such behavior. While integration, regulation, and anomie factors are derived from the Durkheimian approach, imitation factors are based on Tarde's theory of deviance.

In order to overcome potential methodological problems, the present study examines "suicidality" in the form of suicide attempts, not completed suicides. As previous researchers suggested studying suicidality instead of completed suicides does not hinder adopting a Durkheimian framework (Thorlindsson and Bjarnason 1998). That is, such a framework can be used with both suicide attempts and completed suicides.

Research Questions

These research questions were addressed in the present study:

1. Do integration, regulation, and anomie factors of Durkheim affect suicidality among Turkish adolescents?

2. Do imitation factors of Tarde affect suicidality among Turkish adolescents?

Significance of the Study

Micro Contribution to Durkheim

The current study contributes to the microsociological attempts to analyze Durkheim's theory of suicide. That is, this study enables making micro level inferences from Durkheim's theory that is often analyzed on the macro level. A validity problem often emerges when official data is used in empirical research because such data may not always accurate due to political reasons. This study solves the validity problem of analyzing official data as it uses individual level survey data (Van Poppel and Day 1996).

Also, it is possible to distinguish the integration, regulation, and anomie components of Durkheim's theory of deviance with survey data examining interpersonal relationships. Using a macro perspective, on the other hand, would not provide any meaningful information about the distinctions among integration, regulation, and anomie. In an integrated society some individuals may become isolated whereas others may have a strong personal network in a segregated society (Thorlindsson and Bjarnason 1998).

Comparing Durkheim's and Tarde's Theories

Niezen (2015) states that the debate between Durkheim and Tarde on adolescents' suicidality is still valid. According to Durkheim, suicide occurs as a social cohesion problem

when social integration and regulation are disrupted. A state of anomie is observed under such

circumstances and it may eventually lead to suicide. Tarde, on the other hand, asserts that

suicidality is reinforced by exchange of ideas among individuals. That is, individuals with higher

exposure to suicide suggestion are more likely to commit suicide than those with lower exposure.

The current study is important as both of these perspectives can provide notable insight to

explain suicide among adolescents.

Different Cultural Setting

Bjarnason (1998) stated that there are not many empirical studies examining the effects

of social integration, social regulation, and anomie on individual well-being with a Durkheimian

framework among adolescents. He suggested that the empirical results obtained in the United

States and Europe should be investigated in different cultural settings. Therefore, the current

study conducted in Turkey is an important one to fill a gap in the literature.

CHAPTER 2

THEORETICAL FRAMEWORK

Durkheimian Concepts of Suicide

Integration

The term integration emphasizes the interpersonal links between individuals and the links to society. This concept suggests that intensity and length of social interactions are very important as they shape individuals' well-being within a social environment. Stronger interactions lead to positive outcomes for people in terms of social life. Individuals with strong integration to social life consider themselves as a part of the larger whole. These individuals are less likely to commit suicide whereas individuals with weak integration are more likely to commit suicide as they have less respect for social norms and common values (Thorlindsson and Bernburg 2004).

Durkheim (1897) suggests that there are two main elements in social integration. These are social support and social control. High integration is likely to strengthen social bonds and enhance common social values. Thus, it is a very important factor to decrease suicidality. Social integration acts like a control mechanism in the form of "constant exchange of feelings and ideas." This makes integration an inhibitor of suicide and other forms of deviance. According to him, individuals who lack the societal integration may find life meaningless and they tend to display higher suicidality.

As Thorlindsson and Bjarnason (1998) explained, the integration concept in suicide is derived from the variation of suicide rates among the Christian denominations. The varied suicide rates among these social groups is not the consequence of any religious difference. Rather, it was the result of distinct integration levels among these groups. Although all of these

groups have similar attitudes towards suicide, the variation in their integration levels cause the differences in suicide rates.

Mignone and O'Neil (2005) also highlighted the importance of social integration to predict delinquent behaviors. For them, integration refers to the effectiveness of social bonds which enables a well-functioning social life. That is, integrations is a prerequisite for a healthy society with functional institutions. They stated that weak social integration in the form of living alone, lack of friends, high residential mobility etc. is highly correlated with increased suicide rates. There is a positive relationship between such indicators of weak social integration and the odds of committing suicide.

Regulation

Durkheim (1897) expresses that individuals have unlimited desires and ambitions. They constantly look for ways to achieve them and when they fail to do it, people tend to become disappointed and desperate. Durkheim does not believe that individuals are capable of limiting themselves. Instead, he argues that society should establish regulation through external forces since the individuals can not limit themselves. This external regulation consists of social and moral rules embedded in society. Societal regulation tends to help individuals find life meaningful. Therefore, it may decrease suicidality. Otherwise, people may become aimless and more prone to mental problems that will eventually lead to suicide.

Similar to the relationship between integration and anomie, most scholars state that there is a close relationship between regulation and anomie. That is, anomie tends to occur more when there is a lack of regulation. When the regulation mechanisms do not work properly, individuals

with lack of normative constraints on their means and actions find themselves in anomie (Thorlindsson and Bernburg 2004).

Anomie

Sometimes society is not able to carry out its regulation role because of dramatic social transformation or social crises. Durkheim call this situation of deregulation and disorganization as "anomie." Although "normlessness" is another frequently used concept to define anomie, it is too narrow and never used by Durkheim himself. Anomie does not consist of merely lack of norms, rather it includes vague goals, conflicts based on societal transformation, and uncertainty of rules (Thorlindsson and Bjarnason 1998). For Durkheim, a stable and consistent social order with predictable future is a prerequisite for a meaningful and just life. The anomic social environment, on the other hand, make human beings feel that life is meaningless and unjust. In this context, anomie is defined as a discrepancy between means and ends caused by unrestrained desires and unrealistic expectations. This discrepancy make individuals lose meaning and hope in life which they consider as unjust (Thorlindsson and Bernburg 2004). In recent times, people experience a constant and rapid change in the world. Such an environment with unstable social norms and values may affect individuals in a negative way and contribute to increased suicidality all over the globe.

The concept of anomie has been frequently used to explain the relationship between society, culture, and suicidality. Most scholars give credit to Durkheim's anomie approach as a strong theory to explain suicide (Messner and Rosenfeld 1997; Young 1998). This approach acknowledges that human beings are normative and they have shared traditions. The common values that individuals have in social life forms morality and ethics. They are the control

mechanisms over the means that individuals use to achieve their goals. However, when these common social values cannot perform their control task on means, anomie occurs (Bernburg 2002). According to Durkheim, modern industrial society causes a constant deregulation in which the normative limits on individuals' desires are disrupted. If we think about the post-modern society in which people experience even more rapid and constant deregulation, the role of anomie to explain suicide may be greater.

Durkheimian Approach to Suicide

For Durkheim, suicide is not only an area to study. He used this phenomena to explain how society works. As an early sociologist he did not really constrained himself to a specific area of interest. Instead, he wanted to understand the social mechanism. Similar to Freud, he argued that the best way to examine human beings is focusing on the pathologies and deviance (Niezen 2015). According to Durkheim, suicide occurs when the equilibrium of social forces is disrupted.

Durkheim's theory of deviance has three major components. These are integration, regulation, and anomie. While the first two are proposed to have a negative relationship with suicidality, the last one is likely to have a positive impact (Bjarnason 1994). However, Durkheim (1897) warned that too much or too little integration and regulation might cause suicidality to increase. Too much integration facilitates altruistic suicides whereas too little integration fosters egoistic suicide. On the other hand, fatalistic suicides increases with overregulation while anomic suicides tend to rise with underregulation. Durkheim's ideas about integration, regulation, and suicidality has been very controversial so far (Thorlindsson and Bjarnason 1998; Lehman 1995).

Therefore, the present study aims to contribute to the clarification process of these Durkheimian concepts.

The Relationship among Integration, Regulation, and Anomie

Durkheim (1897) acknowledges integration as the prerequisite for regulation, not the other way around. Thus, some scholars argue that integration is the essential component in Durkheim's theory of suicide. However, many scholars state that integration and regulation concepts are independent (Breault 1986; Giddens 1971; Lehman 1993). That is, these two concepts should be utilized independently to explain suicidality. Although Durkheim considered integration as the prerequisite for regulation, using both concepts in an empirical study may provide a better understanding of their impact on suicidality. Therefore, the present study will include separate measures of integration and regulation enabling an empirical distinction between these two social concepts.

Although Durkheim mentions anomie several times in his studies, he fails to provide a consistent description of the concept. According to him, the concept of anomie implies that regulation is the main component of social order. This indicates that regulation and anomie concepts have a close relationship. Thorlindsson and Bjarnason (1998) assert that Durkheim's anomie concept is described by lack of order and regulation. That is, lack of regulation is strongly associated with the essence of anomie in society. Thus, more anomie would be observed in societies with less regulation.

Durkheim did not provide clear distinctions between his concepts of integration, regulation, and anomie. This cause some vague explanations of the concepts as well as certain methodological problems while measuring these concepts. His macro approach does not suggest

12

a clear methodology to be used and specific measures for each concept. However, the present study will use separate measures for each concept in order to provide an empirical distinction among them.

<center>Suicide Types for Durkheim</center>

Altruistic Suicide

Altruistic suicide happens when individuals care about the interests of the social group more than his or her personal interests. These individuals are integrated to the society with strong moral force and they may commit suicide from a sense of duty. He illustrates the example of feudal Japan in which there is high social cohesion, integration, and regulation. In these societies, individuals are attached to each other with "mechanical solidarity" and they have a subordinate role compared to the group. Such a roles and mentality encourage some individuals to kill themselves for the sake of others.

Egoistic Suicide

Durkheim argues that the causes of suicide in industrial societies are different from those in previous eras. The organic structure of industrial societies leads to weakened bonds between individuals as every individual is differentiated in the complex division of labor. Along with lack of traditions and sense of belonging, these individuals have less integration to the society. Durkheim defines this kind of suicide as "egoistic" which occurs when there is loneliness. It is fundamentally different than the suicides observed in the past.

Fatalistic Suicide

Durkheim argues that fatalistic suicide is not observed very often in the modern times. He

<center>13</center>

states that this type of suicide has very little significance in the modern era and there are very

few examples of it. Most well-known example is the kamikaze pilots in wars. However, we are

experiencing these kind of suicides more often in the 21st century. They might be almost extinct

in the 19th and the 20th centuries when Durkheim was alive but, we witness many suicide

bombers exploding themselves as a terrorist attack these days. Paris, Istanbul, Ankara, and San

Bernardino are among the major cities where suicide bombers caused many casualties.

Therefore, such motives to commit suicide needs more attention today.

Anomic Suicide

Institutional crises, economic and political instabilities, and other forms of insecure social

events cause individuals to commit suicide. When there are less checks on individuals' desires,

they find themselves in chaos. This creates frustration and despair and eventually leads to

suicide. This type of suicide is defined as "anomic" suicide. Durkheim argues that anomic

suicide is very prevalent in industrial societies as the complexity of the society and increased

differentiation of individuals weakens the social bonds. In such an environment many people

with weak social bonds kill themselves.

Tarde's Theory of Suicide

Although Durkheimian approach has been very important for the suicide research until

now, it overlooks suggestion and imitation factors articulated by Tarde (1903). Durkheim's and

Tarde's theories of suicide have been competing for a long time. While Durkheim emphasized

macro level social factors, Tarde highlighted the role of micro level interpersonal factors to

explain suicide incidents. Actually, Durkheim did not deny the potential effects of imitation on

suicide completely. He accepts that imitation may have little influence on suicidality. However, he states that integration, regulation, and anomie are the real important factors that affect suicidality, not imitation (Thorlindsson and Bjarnason 1998).

Niezen (2015) suggests that Tarde's theory of suicide is an alternative for Durkheim's perspective but, they are not in direct contradiction. Rather, Tarde attempts to deal with the limitations of the Durkheimian approach. Therefore, these two theories can be considered as complementary rather than opposing. According to Tarde, the social cohesion claimed by Durkheim is not likely to be established in the industrial societies as institutionalized specialization in urban life make individuals separate actors. In the modern era, individuals lack the social bonds they had in the past. Thus, a macro level social cohesion is not very strong. He criticized Durkheim's idea that suicidality can spread among individuals who do not know each other. According to Tarde, some type of interpersonal interaction is necessary for the spread of suicidal thoughts. Toews (2010) explains that Tarde's understanding of social solidarity is composed of changeable ideas and imitation among individuals, rather than social events occurring separately from human beings. Therefore, information exchange through social networks is the most important mechanism that make suicidality spread even though macro level social factors also have some role.

Interestingly, Tarde's (1903) imitation theory on suicide has become popular as a result of Durkheim's rejection. In modern times, there has been some attempts examining the links between suicidality and suicide. In these attempts, the term suicide suggestion has been widely used (Thorlindsson and Bjarnason 1998). A causal mechanism was discovered regarding the impact of media on suicide. Stack (1990) found that high exposure to suicide incidents on the media is related to suicide imitation especially when individuals identify strongly with the

victim. Similarly, previous research highlighted the clustering nature of suicides among the youth (Gould et al. 1989).

In their study challenging Durkheim, Abrutyn and Mueller (2014) state that social ties that are considered as preventive by Durkheim can actually spread the ideas of suicide. Individuals with more suicidal family members and friends are more likely to commit suicide compared to those who have less suicidal people around them. They argue that communication and interpersonal interaction processes are more important than macro level factors in shaping suicidality and other forms of deviance in the recent times. They explained that there is increased communication among individuals through technology and this makes it easier the spread of many ideas including suicide. Similarly, Farberow et al. (1987) found a significant relationship between being suicidal and having friends and family members who completed suicide. Another scholar who promotes Tarde's approach over Durkheim's to explain suicidality and deviance is Niezen (2015). He asserts that suicide and deviance researchers need to address the main ideas of Tarde's sociology due to the rapid transformation in the areas of communication, technology, travel etc. Although he is considered as the loser of the debate on suicide with Durkheim, his alternative approach promises important insights about suicide in recent times. Therefore, more attention of sociological researchers is needed on suicide suggestion and imitation factors.

Tarde (1969) acknowledges that individual actors are the main agents of society. Thus, he considers individual actions and interpersonal interactions as the most important mechanisms in social life. According to him, there are very sophisticated interaction, communication, and imitation processes among individuals. He drew attention to the newspapers as they had significant importance on the dynamics of society. Newspapers changed the form of individuals' interactions as they are unified in space and varied in time. When we think of social media and

16

online newspapers with comment options, we can understand how important Tarde's perspective of suicide and deviance has become. Social media and online newspapers include much more interpersonal communication than traditional methods of interaction. People who have never met in-person before can engage in social interaction through such tools. Therefore, the impact of micro level interpersonal factors on suicide might have increased recently. Also, Tarde (1969) noted the close links between identity and communication which are extensively examined today's researchers in the areas of culture and media. He asserted that there are communications among individuals that are not based on physical proximity.

Tarde (2000) emphasized the role of imitation in suicide. He claimed that the mystical social forces used by Durkheim to explain suicidality are all elements of the imitation process. That is why he emphasized imitation rather than social forces. In addition to his emphasis on imitation, Tarde specified a link between civilization and disappointment as another explanation for suicide. According to Tarde, modernization promotes individualism and the need for self-fulfillment. Therefore, individuals are more likely to experience disappointment in recent times. Tarde suggests that the amount of disappointment is proportional to the communication and imitation level of individuals. When we shift our attention to these days, we can clearly see the increasing individualistic values and greater need for self-fulfillment worldwide. People can follow others using social media and technology. This often increases the feeling of relative deprivation among many individuals. Most people feel that they are never able to achieve self-fulfillment as they constantly compare themselves to others. Thus, Tarde's approach to suicide can shed light on suicidality among adolescents who use such communication tools intensively. Niezen (2015) drew attention to the increasing capability of Tarde's theory to explain suicide in recent times. He accepts that Durkheim's approach has been more far-reaching and useful than

17

that of Tarde's over the past century. However, the rapid changes in technology may help us better understand the merits of Tarde's approach to social dynamics. Also, he highlighted the intense migration that has been taking place in the 21st century. This trend has notable influence on social life, identity, and interpersonal interactions.

The Durkheim Tarde Debate

The main difference between Durkheim's and Tarde's perspectives on suicide lies on the distinct ways they define collective life and social solidarity. Durkheim considers macro level social structure's role in suicide as more significant than micro level social interactions. Also, he claims that the social solidarity has a beyond individual level effect on human behaviors. That is, individuals' behaviors are shaped under the influence of macro level social factors rather than micro level individual factors. Tarde, on the other hand, highlights the independence of individuals who have constant communication among them. According to Tarde, this ongoing communication among individuals make micro level interpersonal relationships more important than macro level social factors in shaping suicidality. Durkheim's historical dominance on suicide studies are began to be questioned by Tarde's approach by suicide researchers in recent times. Tarde's focus on interpersonal communication and imitation may present a potentially better explanation for suicidality than it used to do in the 20th century (Niezen 2015).

CHAPTER 3

LITERATURE REVIEW

Integration Literature

School Integration

In Durkheim's (1897) well-known study *Le suicide: étude de sociologie*, integration is categorized into three groups. These are religious, family, and political integration. However, Thorlindsson and Bernburg (2004) argue that Durkheim's integration concept is not merely restricted to these areas. They suggest that Durkheim's integration concept is part of a general theory of social order and deviance. Thus, it can be applied to any area of social life. School environment is a very important institution with regards to the adolescents' integration to society. It is the second common place for social integration after family environment. It presents collective sentiments and common goals. Also, school plays an important role in constraining adolescents' goals with social norms and values. Children learn what is acceptable and what is not in this environment. The current study will utilize several concepts regarding adolescents' attitudes toward school, studies, and teachers.

Family Integration

According to Durkheim (1897), family integration is likely to reduce suicide rates. That is, good and dense family relations strengthen the familial bonds and create common goals and collective sentiments for the family members. Families with high integration place restraints which prevent individuals from violating the rules (Thorlindsson and Bernburg 2004). He suggests that married people are less likely to commit suicide as they have more family integration. The essence of a very close family member and the constant interaction with him/her

makes individuals more integrated to their family and leads to lower levels of suicidality. Also, individuals in larger families are less likely to commit suicide as there is greater interaction in such families. However, this interaction will reduce suicidality when the familial bonds are strong and supportive. Otherwise, dysfunctional bonds within a family may actually increase the odds of committing suicide. For instance, individuals with suicidal family members are likely to be affected in a negative way through familial bonds and they may be more likely to kill themselves than those with positive familial bonds.

Using the classical Durkheimian approach, Stockard and O'Brien (2002) found that disrupted family environment and family strain lead to increased suicidality. Also, they suggest that individuals with non-traditional family structures experience higher suicidality as they have less social integration and regulation. Such families lack the basic components of a traditional family. Even if existing family members do their best to create a nice family environment, children and adolescents often experience harsh conditions in non-traditional families. In a relatively recent study. Asgeirsdottir et al. (2011) found that having strong familial bonds has a statistically negative effect on suicide and substance use. When individuals have weaker bonds, on the other hand, their tendency to display deviant behaviors including suicide increases. Durkheim's concept of social cohesion corresponds well with the social capital approaches of suicide, networks, and civic engagement (Kushner and Sterk 2005; Mignone and O'Neil 2005).

Thorlindsson and Bjarnason (1998) highlighted that Durkheim himself never measured the quality of the family relations. He only conducted empirical analyses based on marital status and the size of the family. They emphasized the need for empirical studies including the quality of familial bonds to predict suicidality. It may be an important predictor of suicide behavior among adolescents and provide more detailed insight than basic indicators of family such as

marital status and family size. Thus, the present study will measure family integration in the form of quality of familial bonds.

Although there are many macro level studies using aggregate data (Breault 1986; Wasserman 1990), there are few attempts on the micro level with individual level data (Kposowa et al. 1995; Thorlindsson and Bjarnason 1998) on the relationship between family integration and suicidality. Macro level studies generally indicate a significant impact of divorce, marriage, and family size on suicide rates. Divorce is positively; marriage and family size are negatively associated with suicidality.

Peer Integration

There are not many studies examining the relationship between peer integration and suicidality. Cui et al. (2011) found that peer relations play an important role in adolescents' suicidality. They state that low peer integration is associated with higher suicidality among adolescents in China. Another study conducted by Kidd et al. (2006) found similar results. They suggest that there is a negative relationship between peer integration and suicidality among adolescents.

Religious Integration

Durkheim states that religion facilitates psychological and social bonds. Many studies have indicated a positive impact of religiosity on physical, psychological, and social well-being (Gorsuch 1995; Ellison 1995; Stark 1996). It is inversely related to crime, delinquency, substance use, family problems, depression, anxiety, and health problems (Bjarnason 1998). Bjarnason (1998) grouped the causal mechanisms of positive association between religiosity and

well-being. First, religious communities provide integration and regulation for religious individuals. Along with the social support and social control theories, religious communities increase social integration as they enable religious people to have social support. Also, they act like a social control mechanism that regulates individuals' lives. Second, religious beliefs and religious worldviews have direct positive effects on individual well-being. This direct relationship is mostly influenced by one's divine interaction with God. It has a separate affect than a social control mechanism role.

Religiosity is a hard concept to measure and the lack of a standardized measure makes it difficult to compare results across studies. However, most studies utilize religious communities and religious beliefs to measure this concept (Ellison and George 1994; Williams 1994). A similar approach is used in this study and it will be explained in more detail under the measurement title.

As Bjarnason (1998) argued the relationship between religiosity and well-being requires a broad, comprehensive theory. In this sense, a Durkheimian framework may be helpful to examine the impact of religiosity on well-being. Therefore, the present study utilizes such a framework.

Previous researchers suggested that being religious enables individuals to find life coherent and meaningful (Ellison 1995, Williams 1994). These researchers often referred to Durkheim's social integration concept while they explain how religious beliefs and religious communities help individuals to view life more meaningful. Also, they utilized Durkheim's anomie concept to express the relationship between considering life meaningless and impaired individual well-being. According to the Durkheimian framework, individual well-being needs a stable social reality. Any type of uncertainty has a negative impact on the well-being of humans.

Under instability, an anomic experience occurs and life may become meaningless for individuals (Bjarnason 1998).

Durkheim (1897) argues that social integration in the form of interactions plays a key role for the well-being of individuals as it strengthens the bonds of individuals to others and to common goals. Social support not only improves well-being, it also decreases the effects of negative life events. Although Durkheim is not very clear at this point, some scholars highlighted that the quality of the social bonds are important, not the quantity (Bjarnason 1998; House et al. 1988). That is, individuals benefit more from few but high-quality bonds than numerous but low-quality bonds. Thoits (1983) stated that social groups with high integration and cohesion provide their members meaning, purpose, and stability in life. Therefore, individuals who have ties with religious communities and groups are less likely to display delinquent behaviors and commit suicide. Ellison and George (1994) found that individuals who attend religious services frequently tend to have stronger social bonds and social support. In addition to its integration role, being a member of a religious community or group regulates the lives of their members in terms of moral constraints that promote physical and psychological well-being as well as reducing stress. Actually, this is among the most influential predictors of stability for human-beings.

Another aspect of the religiosity is the divine interaction that individuals establish directly with God. Some scholars argued that the personal interaction with God is more important than the interactions between other individuals within the religious group (Hertel and Donahue 1995). The current study will not measure the impact of divine interaction on suicidality. Instead, it will be included as a part of a broad religiosity scale.

The present attempt will be an applied study among adolescents of the theoretical framework on the relationship between religiosity and individual well-being. The religiosity factor in the study will contain belief, religious attendance, religious activities, relationship with God, and the interactions with religious individuals. These components of religiosity are likely to form a reliable measure of the concept.

Neighborhood Integration

Although there has not been many attempts to investigate the effect of neighborhood integration on suicide, previous research indicate that high residential mobility leads to low integration to the neighborhood lived and eventually high levels of delinquency including suicide (Bernburg et al. 2009; Thorlindsson and Bernburg 2008). Therefore, the present study expects a significant positive relationship between neighborhood integration and suicidality among Turkish adolescents.

The literature on the effects of different aspects of integration on suicidality suggest the following hypotheses:

H1: Higher school integration is related to lower suicidality, all else equal.

H2: Higher family integration is related to lower suicidality, all else equal.

H3: Higher peer integration is related to lower suicidality, all else equal.

H4: Higher religious integration is related to lower suicidality, all else equal.

H5: Higher neighborhood integration is related to lower suicidality, all else equal.

Regulation Literature

Family Regulation

Stockard and O'Brien (2002) found that negative relationships and strain within the

24

family environment lead to higher suicide rates. According to them, there is less social integration and regulation in nontraditional families. This is the reason why individuals with those families experience higher suicide rates. Traditional families, on the other hand, inhibit suicidality as they include less strain.

Family is not only a source of integration, it is also a source of regulation. In particular, parental rule setting regulates the lives of children and adolescents. Although Durkheim (1897) considered social regulation on individuals as an important factor to determine well-being, some scholars argued that it does not have a significant impact when the integration factor is introduced (Thorlindsson and Bjarnason 1998). That is, the effect of family regulation on the dependent variable will wither away when family integration is added to the statistical model. The current study includes both family integration and family regulation to get the independent and composite effects of these factors. This type of approach would shed light on the issue of vague interaction between integration and regulation factors in family setting that has not been well addressed in the literature.

The literature on the effects of family regulation on suicidality suggests the following hypothesis:

H6: Higher family regulation is related to lower suicidality, all else equal.

Anomie Literature

Anomie theory has often been used by researchers in the area of crime and delinquency. The empirical relationship between anomie and individual well-being has been commonly tested (Agnew 1992; Chamblin and Cochran 1995; Vaughan 1997). Their main emphasis is that normative regulation is highly correlated with delinquent behaviors. This normative regulation

can be related to legal, religious, or moral norms. Focusing on the religious norms, empirical studies has found a consistent relationship that indicates religiosity leads to decreased anomie (Bjarnason et al. 1998; Martin and Stack 1983).

When the rules and goals are not clearly defined by social norms and values, individuals experience uncertainty and ambiguity in social life. This aspect of anomie tends to be very important for adolescents as they often have problems with finding meaning and purpose in life (Thorlindsson and Bernburg 2004). Therefore, the present study will make an important contribution to the existing literature.

Similar to the integration concept, school is an important place for adolescents in terms of anomie experiences. Education period enable adolescents to adopt socially accepted means to be successful in both social and economic life. It is the most important era after family that shapes individuals' characteristics. The influence of this period tends to maintain its significance lifelong (Thorlindsson and Bernburg 2004).

The literature on anomie and suicidality suggests the final hypothesis in this study:

H7: Higher anomie is related to higher suicidality, all else equal.

Imitation Literature

On the basis of Tarde's imitation approach, many researchers have examined the role of imitation process on suicide until today. Ward and Fox (1977) are among these researchers and they focused on eight suicides occurred in around a year in northern Ontario. In his empirical study, Tishler (1981) indicated that around 20% of the adolescents who attempted suicide had experienced suicidal behavior in their family history. In another study conducted in the same region, Spaulding (1986) found a high suicide rate (61.7 per 100,000) between 1975 and 1982.

26

He indicated that these suicides were mostly committed by young males with firearms. These studies highlight the role of imitation in suicide.

Farberow et al. (1987) found that adolescents with friends and family members who committed suicide are more likely to attempt suicide than those without such acquaintances. Similarly, Bjarnason and Thorlindsson (1994) identified the strongest predictor of suicidality as having suicidal friends around. These findings are important to emphasize the relationship between suicide imitation and suicide attempts.

Another study on the cohort effects on suicide rates by Stockard and O'Brien (2002) indicated that suicide attempts can be observed as a collective behavior within a cohort. Individuals in such groups are usually young people in the same surrounding. They suggest that individuals in such cohort effects often have similar characteristics in terms of everyday life, and high vulnerability to criminality and suicide. These characteristics are likely to be enhanced through interpersonal social links and they last the entire lifetime. Thus, regular interaction with suicidal individuals is likely to be a consistent predictor of suicidality as individuals are often affected by others around them.

Samson (2003) defines the suicides committed under the influence of a cohort effect as "communal tragedy." He explained that sometimes suicide events are presented in the media so prevalently that individuals begin to think that self-destruction is a normal part of human life. That is, excessive media coverage on suicide attempts in a community can trigger and consolidate hopelessness among individuals. This hopelessness can be reinforced by certain negative factors such as health problems, violence, addictions, and poverty. These factors observed within the same community are likely to contribute the cohort effect on suicides and lead to higher suicide rates.

Thorlindsson and Bernburg (2004) found that time spent with delinquent friends has a statistically significant positive effect on adolescents' delinquency. That is, more time spent with such friends leads to increased delinquency. Similarly, in a 2008 empirical study, Chandler and Lalonde found that aboriginal people in Canada have higher suicides rates than the rest of the population.

In a more recent study, Niezen (2015) states that there are some "suicide clusters" in which suicide attempts take place within certain communities including schools, prisons, and villages with high aboriginal population. He suggests that individuals in suicide clusters tend to be linked with one another in a form of collective behavior. According to him, Tarde's theory of deviance with a special emphasis on the imitation process is highly compatible with the new patterns of suicide observed in recent times.

The literature on the effects of suicide imitation on suicidality suggests the following hypothesis:

H8: Higher number of suicidal friends is related to higher suicidality, all else equal.

CHAPTER 4

RESEARCH METHODS AND DESIGN

Data

Youth in Europe (YIE) 2008 data was used in this study. It is a cross-sectional data. YIE

purposes to prevent young people from using drugs and it is designed by European Cities against

Drugs (ECAD) organization. YIE project conducted in chosen European cities and Istanbul was

one of them. Bagcilar district of Istanbul is the area where the data were collected in 2008. It is

the most crowded district of Istanbul with a population of more than 750,000 (TUIK 2015).

Sample Characteristics

The target population of the present study is 10th grade students in Bagcilar. The

sampling frame was created by using Bagcilar public school district records. 85 10th grade

classes were randomly selected out of 162. The survey was administered to 2,898 students and

2,740 of them completed it (a response rate nearing 95%). After the obtained data were cleaned,

there were 2,457 valid cases (Altuner et al. 2009).

Measurement

The indices used in this study are created by the Youth in Europe (YIE) project. Since

this dataset is specifically created for suicide, alcohol, and deviance studies, the indices fit the

current study well. Therefore, they are used exactly how they are presented in the dataset.

Dependent Variable

The dependent variable of the current study is suicidality. It is measured with an index

variable composed of two items. "Have you ever made an attempt to commit suicide?" and "Have you made an attempt to commit suicide this school year" are the questions for the two items. The Cronbach's alpha is .746 suggesting high reliability for the measure. It is a dichotomous variable with response categories (1) Yes and (0) No.

Independent Variables

There are five independent variables measuring integration. The first one is school integration. It is an index variable combining the following nine items of school integration: (a) I find the studies pointless, (b) I am bored with the studies, (c) I am poorly prepared for classes, (d) I feel I do not put enough effort into the studies, (e) I find the studies too easy, (f) I find the studies too difficult, (g) I feel bad at school, (h) I want to quit school, (i) I want to change schools, and (j) I get on badly with the teachers. With a .78 value of reliability coefficient this index has high internal consistency. Response categories for school integration are 1. *applies almost never to me*, 2. *applies seldom to me*, 3. *applies sometimes to me*, 4. *applies often to me*, and 5. *applies almost always to me*. Higher values in the school integration index represents higher school integration.

Family integration is also measured with an index. It is a combination of five items regarding "How easy or hard would it be for adolescents' to receive the following from their parents:" (a) caring and warmth, (b) discussions about personal affairs, (c) advice about the studies, (d) advice about other issues, (e) assistance with things. This index variable has high internal consistency as the Cronbach's alpha value is .73. Response categories are 1. *very difficult*, 2. *rather difficult*, 3. *rather easy*, and 4. *very easy*. Higher values indicate higher family integration.

Similarly, peer integration is measured with an index combining five items and asking "How easy or hard would it be for adolescents' to receive the following from their peers:" (a) caring and warmth, (b) discussions about personal affairs, (c) advice about the studies, (d) advice about other issues, (e) assistance with things. This index is reliable as the Cronbach's alpha value is .80. Again, the response categories are 1. *very difficult*, 2. *rather difficult*, 3. *rather easy*, and 4. *very easy*. Higher values represent higher peer integration.

Another component of the integration measure is religious integration. It is also an index variable consisting of the following eight items about respondents' religiosity: (a) I believe in God, (b) my faith is important to me, (c) I pray to God on a regular basis, (d) I regularly read in the scriptures of my faith, (e) I regularly attend religious services, (f) I regularly take part in religious activities other than services, (g) I would be able to get support from God if I needed it, and (h) I have sought support from God when I have needed it. Although religiosity is a hard concept the index is very comprehensive as it includes belief in God, relationship with God faith, praying, reading scriptures, and attending religious services and activities. The reliability coefficient for this index suggests that it has high internal consistency (alpha=.82). Response categories for religiosity variable are 1. *applies almost never to me*, 2. *applies seldom to me*, 3. *applies sometimes to me*, 4. *applies often to me*, and 5. *applies almost always to me*. Higher religiosity is represented by higher values in the index.

The final independent variable related to integration is neighborhood integration. It consists of three questions that are focused on adolescents' familiarity and interaction with other adolescents in their neighborhood: (a) how many kids your age living close to you do you know by sight, (b) how many kids your age living close to you do you know by name, and (c) how many kids your age living close to you do you talk to. The response categories are 1. *almost*

31

none, 2. *some*, 3. *a number of*, 4. *most*, and 5. *almost all*. The high reliability coefficient (alpha=.74) suggests that this index variable has high internal consistency. Higher values represent higher integration to the neighborhood.

The family regulation measure has one single index variable. It consists of eleven items: (a) parents find it important that I do well in my studies, (b) parents set definite rules about what I can do at home, (c) parents set definite rules about what I can do outside the home, (d) parents set rules about when to come home in the evenings, (e) parents know whom I am with during the evenings, (f) parents know where I am in the evenings, (g) parents know my friends, (h) parents know the parents of my friends, (i) parents often talk to the parents of my friends, (j) parents meet friends' parents, and (k) parents follow what I do in my recreational time. There is a high internal consistency in this index variable as the reliability coefficient is .81. Response categories for family regulation variable are 1. *applies almost never to me*, 2. *applies seldom to me*, 3. *applies sometimes to me*, 4. *applies often to me*, and 5. *applies almost always to me*. Higher scores indicate higher regulation of the family on adolescents.

Anomie is measured with an eight-item index variable. These items are related to individuals' conformity to rules, general trust levels, and perception of expectations: (a) one can break most rules if they don't seem to apply, (b) I follow whatever rules I want to follow, (c) in fact there are very few absolute rules in life, (d) It is difficult to trust anything, because everything changes, (e) in fact nobody knows what is expected of him/her in life, (f) one can never be certain of anything in life, (g) sometimes one needs to break rules in order to succeed, and (h) following rules does not ensure success. A high reliability coefficient of .76 suggests that anomie index has high internal consistency. Response categories of anomie variable are 1.

strongly disagree, 2. *disagree somewhat*, 3. *don't know*, 4. *agree somewhat*, and 5. *strongly agree*. Higher level of anomie is represented by higher scores in the index.

The final independent variable is suicide imitation. It is measured with a five-item index variable. These items include information regarding individuals' exposure to the idea of committing suicide: (a) somebody told you that he/she was thinking about committing suicide, (b) anyone of your acquaintances at any time tried to commit suicide, (c) anyone of your acquaintances committed suicide, (d) anyone of your friends or someone else close to you ever tried to commit suicide, and (e) anyone of your friends or someone else close committed suicide.

This index variable has high internal consistency as the reliability coefficient is .77 for this variable. In the original form response categories are 1. yes and 2. no. After recoding, 1.yes and 0. no. responses to every item was summed to calculate the score for each respondent. Higher scores represents higher suicide imitation.

Control Variables

There are three control variables in the study. These are age, gender, and family structure. The adolescents in the sample ranges between 12 and 18. Gender is a nominal variable with two categories: boys and girls. In the analysis, one dummy variable is created. It is recoded as (1) male and (0) female. Females are the reference category. Family structure refers to the living arrangement of adolescents. In the original form, it has numerous response categories. In the analysis, however, a dichotomous variable is used (1) living with both biological parents and (0) other living arrangements.

Analytical Strategy

In the current study, the effects of the predictor variables on suicidality are analyzed. The analyses are conducted using binary logistic regression method as suicidality variable is dichotomous. There are five models estimated in the analyses. The first model regresses the demographic variables on the dependent variable suicidality. The second model adds the integration variables into the analysis. In the third model, regulation variable is also included in the analysis. The fourth model adds the anomie variable into the analysis. Finally, the fifth model includes the suicide imitation variable.

CHAPTER 5

RESULTS

Descriptive Statistics

Table 1 presents the means, standard deviations, minimum and maximum values of the variables in the analysis. According to Table 1, 10% of the adolescents in the sample are suicidal. The sample has an age average around 14.36 years. 50% of the participants are male as the mean score of the gender variable is .50. The adolescents who live with their both biological parents constitute the 92% of the whole sample.

Table 1

Descriptive Statistics Predicting the Factors affecting Suicidality among Turkish Adolescents YIE (Youth in Europe) 2008 (N = 2159)

Variables	Mean	SD	Minimum Value	Maximum Value
Suicidality	.10	.30	.00	1.00
Age	1.36	.69	.00	4.00
Gender (1= male)>[a]	.50	.50	.00	1.00
Family Structure (1= living with both biological parents)>[b]	.92	.27	.00	1.00
School Integration	3.61	.77	1.00	5.00
Family Integration	2.96	.64	1.00	4.00
Peer Integration	3.25	.62	1.00	4.00
Religious Integration	3.41	.58	1.00	4.00
Neighborhood Integration	3.52	.95	1.00	5.00
Family Regulation	2.95	.54	1.00	4.00
Anomie	3.86	.74	1.00	5.00
Imitation	1.10	1.47	.00	5.00

Note. [a]<Females> is the reference group. [b]<Living in other arrangements> is the reference group.

On average, adolescents reported high school integration. The mean score for school

integration variable is 3.61 (Range 1-5). They also reported high family integration as the mean

score of the related variable is 2.96 (Range 1-4). Peer integration is very high among the sample.

The mean score of the peer integration variable is 3.25 (Range 1-4). Adolescents in the sample

have very high religious integration as the mean score is 3.41 (Range 1-4). Neighborhood

integration is also high among the participants. The mean score is 3.52 (Range 1-5). The sample

displays high family regulation with a mean score of 2.95 (Range 1-4). High anomie is observed

as the mean score of the anomie variable is 3.86 (Range 1-5). Finally, suicide imitation is very

low as the mean score of the variable is 1.10 (Range 0-5).

Multivariate Analyses

Table 2 presents the logistic regression estimates. There are five models estimated in the

study. The pseudo R^2 of the fifth model (.26) is substantially larger than the pseudo R^2s of other

models. Also, the -2 log-likelihood value of the fifth model (-526.32) is lower than the other

models. Finally, the model χ^2 of the fifth model is the highest (364.65). Therefore, the fifth model

will be utilized to interpret the empirical results.

School integration has a statistically significant negative effect on suicidality ($p \leq .001$).

On average, each additional one unit increase in school integration decreases the probability of

committing suicide by 34.1% among Turkish adolescents (odds ratio= .659). This result supports

the first hypothesis in the study.

Second hypothesis is also supported by the results. There is a negative relationship

between family integration and suicidality ($p \leq .05$). Among Turkish adolescents, the odds of

committing suicide, on average, decreases by 23.7% with each additional one unit increase in

family integration (odds ratio= .763).

The results suggest no support for the third hypothesis. There is no significant

relationship between peer integration and suicidality.

Religious integration has no statistically significant effect on the dependent variable suicidality. Although there is a negative effect of religious integration on suicidality in the fourth model, this effect disappears when suicide imitation variable is included in the analysis. This result suggests no support for the fourth hypothesis.

The fifth hypothesis in the study is not supported. There is no statistically significant relationship between neighborhood integration and suicidality.

The results indicate support for the sixth hypothesis. That is, there is a significant negative relationship between family regulation and suicidality ($p \leq .05$). On average, each one unit additional increase in the family regulation scale decreases the odds of committing suicide by 29.7% among Turkish adolescents (odds ratio= .703).

The seventh hypothesis is not also supported. There is no significant relationship between anomie and suicidality.

Finally, the results suggest support for the eighth hypothesis. Suicide imitation has a statistically significant positive effect on the dependent variable suicidality ($p \leq .001$). The odds of committing suicide increases by 116.8% with each additional one unit increase in the suicide imitation scale all else equal (odds ratio= 2.168).

As for the control variables, age has a significant positive impact on the dependent variable suicidality in the fourth model ($p \leq .01$). However, this relationship disappears in the fifth model when suicide imitation variable is included in the analysis. Similarly, there is a significant effect of gender of the respondent on suicidality in the fourth model. This relationship goes away when suicide imitation is added into the analysis. Finally, there is no statistically significant relationship between family structure and suicidality.

Table 2

Logistic Regression Estimates Predicting the Factors Affecting Suicidality among Turkish Adolescents Youth in Europe (YIE) 2008 (N = 2159)

Variable	Model 1		Model 2		Model 3		Model 4		Model 5	
	B (SE)	Odds Ratio	B (SE)	Odds Ratio	B (SE)	Odds Ratio	B (SE)	Odds Ratio	B (SE)	Odds Ratio
Age	.415*** (.090)	1.515	.285** (.098)	1.330	.282** (.098)	1.323	.282** (.098)	1.323	.106 (.114)	1.111
Gender of respondent (1= male)>[a]	-.415** (.139)	.661	-.609*** (.158)	.551	-.643*** (.160)	.532	-.642*** (.161)	.532	-.241 (.180)	.790
Family Structure (1= living with both biological parents)>[b]	-.441* (.223)	.644	-.334 (.248)	.708	-.323 (.248)	.717	-.323 (.248)	.717	-.165 (.280)	.849
School Integration			-.512*** (.093)	.600	-.513*** (.093)	.600	-.512*** (.095)	.600	-.419*** (.108)	.659
Family Integration			-.408*** (.112)	.668	-.393*** (.114)	.678	-.392*** (.114)	.678	-.269* (.125)	.763
Peer Integration			-.203 (.120)	.817	-.210 (.121)	.811	-.211 (.121)	.811	-.254 (.136)	.776
Religious Integration			-.312** (.112)	.679	-.300** (.113)	.685	-.299** (.113)	.685	-.014 (.130)	.951

(table continues)

Variable	Model 1 B (SE)	Model 1 Odds Ratio	Model 2 B (SE)	Model 2 Odds Ratio	Model 3 B (SE)	Model 3 Odds Ratio	Model 4 B (SE)	Model 4 Odds Ratio	Model 5 B (SE)	Model 5 Odds Ratio
Neighborhood Integration			-.005 (.078)	1.000	-.009 (.078)	.997	-.010 (.079)	.997	-.148 (.088)	.864
Family Regulation					-.176 (.134)	.838	-.176 (.134)	.838	-.357* (.149)	.703
Anomie							.005 (.101)	1.000	-.145 (.114)	.864
Imitation									.776*** (.053)	2.168
Constant	-2.098 (.252)	.123	2.637 (.664)	17.811	3.114 (.760)	28.982	3.093 (.879)	28.967	1.705 (.964)	6.118
Pseudo R²	.017		.074		.073		.075			.26
-2 Log Likelihood	-777.99		-668.78		-667.71		-667.71			-526.32
Model χ²	27.53		106.21		108.13		108.13			364.65
Model Degrees of Freedom	3		8		9		10		11	

Note. B (SE) = unstandardized estimate of the logistic regression coefficient (and its standard error). [a]<Females> is the reference group. [b]<Living in other arrangements> is the reference group. ***$p \leq 0.001$, **$p \leq 0.01$, *$p \leq 0.05$ (two-tailed tests).

CHAPTER 6

DISCUSSION AND CONCLUSION

Summary

The current study examined the effects of school integration, family integration, peer integration, religious integration, neighborhood integration, family regulation, anomie, and suicide imitation on suicidality among Turkish adolescents. It is the first study utilizing separate measures of Durkheim's integration, regulation, and anomie factors to estimate adolescents' suicidality in Turkey. Durkheim and his proponents suggest that higher integration and regulation leads to lower suicidality while higher anomie is associated with higher suicidality.

This study found partial support for the integration factors. School integration and family integration are negatively related to the dependent variable suicidality. On the other hand, peer integration, religious integration, and neighborhood integration have no significant effects on adolescents' suicidality. This result suggests that school integration and family integration are more important factors than peer integration and neighborhood integration. The reason for this result can be related to the idea that family is a more long term relationship compared to peers and neighbors. Familial bonds are more intimate than bonds to friends and people those around. This is likely to make family integration an important factor. Similarly, adolescents spend most of their time at school. This makes school integration more important than peer and neighborhood integration. Actually, religious integration variable was a significant predictor of adolescents' suicidality, however, its effect disappeared in the final model when suicide imitation variable is included in the analysis. Using religiosity items related to the respondents or the significant others of the respondents did not change the results. Future studies with moderation and mediation techniques may shed light on this interesting finding. An important point to note is

that the neighborhood integration measure may need to be modified in future studies. The current study uses 2008 data and it asks about the physical proximity of neighbors. However, adolescents are widely affected by the evolution of technology. Now, they have different forms of interactions with their friends compared to past. Adolescents may interact with others who live far away. They may have continuous relationships with others with whom they have never met in person. Therefore, a modified version of neighborhood integration measure is needed for more accurate results. Finally, the present study was not able to compare districts because the data were collected only in one district of Istanbul. A more extensive dataset with the capability to compare several districts would suggest further detail regarding the influence of neighborhood integration on adolescents' suicidality.

Family regulation has a statistically significant impact on adolescents' suicidality. As explained in the previous paragraph, family is a long term intense relationship than any other relationship. Familial bonds have strong influence on adolescents' well-being. Therefore, family regulation is a significant predictor of suicidality among Turkish adolescents. Higher family regulation make familial bonds stronger and help adolescents find meaning in life.

An interesting result is that there is no relationship between anomie and adolescents' suicidality. This finding can be explained based on the close relationship between integration, regulation, and anomie. Since anomie occurs when there is low integration and low regulation, it may not have an independent significant effect on suicidality when it is included in the same model with integration and regulation factors.

A strong significant relationship is found between suicide imitation and suicidality. This result suggests that imitation factor of Tarde is useful to explain suicide among adolescents. Each additional one unit increase in the suicide imitation scale increases the odds of committing

suicide by 117.3% all else equal. This strong relationship indicates that suicide imitation is a very important factor affecting suicidality among Turkish adolescents. When suicide imitation is included in the analysis, the effects of school integration and family integration decreases. Similarly, the effect of religious integration on the dependent variable disappears in the statistical model with suicide imitation variable. These variations in the results suggest that imitation factor supported by Tarde is more important than integration factors supported by Durkheim to explain suicidality among Turkish adolescents. Therefore, we can conclude that Tarde's theory of suicide has much to offer to suicide studies. The results obtained in the current study should be tested in different cultural settings.

Finally, the study reveals that age and gender have no statistically significant effects on the dependent variable suicidality. Actually, age is positively related to adolescents' suicidality in the fourth model. However, this significant relationship disappears when suicide imitation variable is included in the fifth model. Similarly, females are more likely to commit suicide compared to males in the fourth model, but there is no correlation in the final model. The results for age (Asgeirsdottir et al., 2010) and gender (Bjarnason et al., 2002; Felson et al., 2011; Thorlindson and Bernburg, 2008) are consistent with the previous findings according to the fourth model. When we include suicide imitation, however, they are not significant predictors of suicidality. Future studies examining moderation and mediation affects related to age, gender, and suicide imitation variables may provide more in-depth information on adolescents' suicidality in Turkey.

Policy Implications

There are three main policy implications that can be inferred based on the current study.

First, school integration is an important factor to decrease suicidality among Turkish adolescents. As Niezen (2015) stated success of institutions can contribute to the feelings of belonging and hope whereas failure of them can negatively affect these feelings. In particular, failure of institutions can increase suicidality by making individuals feel powerless and hopeless. These individuals tend to have lower attachment to life and more burden of despair in life. When we realize that adolescents spend most of their time at school, it is clear that school integration is vital to prevent suicide attempts. Low integration to school can be observed when students find the studies pointless, they are poorly prepared for classes, they want to quit or change school, they get on badly with the teachers etc. School administration and teachers should be aware of potential suicidal students who have attitudes indicating low integration to school and help them elude from such attitudes.

Second, family integration is another important factor to prevent adolescents from committing suicide. Some indicators of low family integration are as follows: Parents do not show sufficient care and warmth, they do not discuss about adolescents' affairs, they do not provide advice about issues, and they do not help their children in general. Since low family integration may lead to higher suicidality, parents should be educated about how to increase family integration by school officials and related programs. This policy implication is supported by the previous literature (Bernburg et al., 2009; Gunnlaugssona et al., 2011; Sigfussdotti et al., 2007; Thorlindsson and Bjarnason, 1998).

Third, higher family regulation is associated with lower suicidality among Turkish adolescents. The current study indicate that relationships with family members are very important for adolescents than any other relationship. Familial bonds' strong influence on adolescents' suicidality should encourage parents to be aware of what their children do and

where they are. In particular, parents should know where and with whom their children spend time. Also, parents should be familiar with the parents of their children's friends. Another important point about family regulation is that parents should set definite rules regarding what their children can do at home, what they can do outside the home, when they should be at home in the evenings etc.

Finally, suicide imitation has a positive impact on suicidality among Turkish adolescents. As discussed earlier in the current study, Tarde's theory of suicide explains new patterns of suicide better. The role of interaction and communication has increased in spreading suicide across individuals in recent times. Therefore, imitation process in suicidality is much more important than the times when Durkheim and Tarde debate on suicide took place (Niezen 2015). Suicide imitation refers to having friends or acquaintances who committed suicide or tried to commit suicide. In order to prevent suicides among adolescents, parents and teachers should be familiar with social circles of adolescents. Friend groups that are more likely to spread suicide should be monitored closely. Parents and teachers should make conversations with adolescents who have a higher risk of committing suicide. The purpose of such conversations should be convincing adolescents not to damage themselves and help them deal with their problems rationally.

Limitations

The first limitation of the study is about the cross-sectional nature of the dataset used. Results based on this type of data may suggest correlations between variables. However, it cannot explain any causal relationships. Therefore, a longitudinal study may be beneficial to understand the causality between relevant factors and suicide.

The second limitation of the study is that the results are hardly generalizable to the entire nation. The data was collected only in one district of Istanbul. More generalizable results can be obtained by using a nationally representative dataset.

Another limitation is that the dataset does not have any regulation measure except for family regulation. However, other regulation types such as religious regulation can be very helpful to explain adolescent suicidality, if they are included in the dataset.

Finally, the present study lacks any group level variable. The present study purposes to analyze Durkheim's macro theory of deviance on the micro level. His ambiguity regarding the different levels of analysis encourages empirical research to conduct multilevel analysis. However, the dataset does not include any aggregate level data. Therefore, we will conduct the analysis with only individual level data. A dataset with both individual and aggregate level data would improve the understanding of Durkheim's somewhat empirically vague theory significantly.

Recommendations for Future Research

The current study suggests important policy implications regarding the micro level individual factors that can affect adolescent suicidality using Durkheim's macro level theory. However, there may be some macro level social factors affecting suicidality. Durkheim's ambiguity regarding different levels of analysis encourages multi-level analysis. Students in different schools may differ regarding suicidality. However, the present study has no group level variable in the dataset. Future studies using multi-level models may be beneficial as their results may suggest important policy implications about preventing adolescents' suicidality.

Another recommendation can be made about the theoretical framework of the study. This study uses Durkheim's integration, regulation, and anomie concepts. However, Gabriel Tarde has a competing theory that highlights the role of imitation to predict suicidality. That is, individuals with more suicidal friends are more likely to commit suicide than those with less suicidal friends. Future research comparing Durkheim's and Tarde's theories to explain suicidal behavior can be beneficial.

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