

Exploring Anomie in a Special Life-Stage: Adolescent Anomie and Aggression

By

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### **Abstract**

Adolescence is a critical biological and social transitional period, resulting in a variety of new emotions in teenagers. Feelings of normlessness, purposelessness and meaninglessness are among these emotions. These feelings of normlessness, purposelessness, and meaninglessness are often referred to as ‘anomie’ by criminologists and sociologists. This study attempts to utilize Durkheim’s theoretical model and framework of anomie to explain adolescents’ aggression. Data from the “National Longitudinal Survey of Children and Youth, 1998-1999, Self Reporting Cycle 3” with a sub-sample of 5500 of adolescents [ages ranged from 10-15 years] are used to explore if the anomic condition in adolescence is linked to increased aggression. Results from the multivariate analysis support the hypothesis that indeed the anomic condition during adolescence is positively related to their levels of aggression.

*Keywords:* physical change, transitional stress, anomie, anomic condition, aggression

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## Exploring Anomie in a Special Life-Stage: Adolescent Anomie and Aggression

### **Chapter 1: Introduction**

“Anomie has several highly related dimensions. At the core of the anomie concept lays the general idea that the absence of clear rules of behaviour and ambiguity in rules and goals create a state where the individual faces uncertain, conflicting expectations and ambiguous norms and values. This general dimension of anomie may be especially pertinent to adolescence, which is a period in life where the individual is struggling with problems of meaning and purpose” (Thorlindsson & Bernburg, 2004, p.274).

Anomie is a sociological concept that describes ambiguity within transitional societies (Durkheim, 1951). It has been associated with suicide, homicide, and the formation of deviant subcultures in many studies (Art, Hermkens & Van Wijck, 1995; Krivosheyev, 2004; Messner & Rosenfeld, 1997; Willis, Coombs, Cockerham & Frison, 2002). It is sometimes characterized by feelings of normlessness, purposelessness and meaninglessness (Dean, 1961; Sani, Bowe & Herrera, 2008; Seeman, 1959; Srole, 1956; Thorlindsson & Bernburg, 2004; Willis et al., 2002). Thus, it stands to reason that as physical change occurs during puberty, adolescents may be prone to experience anomie. However, the link between anomie and adolescence needs to be explored more because this link may shed new light to aggressive behaviour during adolescence. The present thesis is going to explore this relationship in detail.

The thesis will be divided into six parts. Chapter 1 will lay out the hypotheses to be tested. Chapter 2 will review the literature. Chapter 3 will describe the sample and variables used in the analyses. Chapter 4 will report the results of the analyses. Chapter 5 and 6 will discuss and conclude the thesis.

Basically, I am going to advance the literature of anomie by attempting to test the following hypotheses:



Hypothesis One: individual physical changes during adolescence may be associated with feelings of meaninglessness, feelings of purposelessness, and feelings of normlessness and all of them are parts of the anomic condition.

Hypothesis Two: these anomic conditions may be predictors of individual aggressive behaviours. I will test this hypothesis by introducing a number of control variables, such as family, friendships, and their access to money.

The following questions will be investigated in Hypothesis One: Are physical changes such as body hair development, female breast development, female menstruation, male voice changes, and male fair hair development associated with the anomic condition? Will the anomic condition be associated with the age of a child? Will males and females have similar association to the anomic condition or will they be different as the psychological developmental research literature on transitional stress would suggest?

I will explore if the transitional state an adolescent goes through, from being a child to becoming an adult, is engaged with anomie. The idea is scattered in the literature on physical change, youth development, youth deviance and anomie. The study utilizing Emile Durkheim's theoretical framework of anomie suggests the transitional stress of becoming an adult is a constant for all youth and that transitional stress is a catalyst for the anomic condition.

Next, Hypothesis Two will ask whether the anomic conditions predict aggression. Additionally as stated earlier, it will also explore whether access to money, friendships, and parenting variables will mediate the anomic condition and its relationship to aggression.

The rationale behind why I explored if access to money can predicts aggression comes from my interpretation of Merton's 1938 theory of anomie. In the literature review of his work it will be suggested that anomie is a cultural event that stems from the inability to achieve through conventional means, goals (Menard, 1995; Cao, 2004). Furthermore, Menard (1995) suggests that access to money or the lack of opportunity to the resource creates blocks to achieving some cultural goals.

While examining the literature on anomie it became apparent that blocked financial means and goals can cause youth to seek out peer relationships (Cloward & Ohlin, 1960; Cohen 1955). Furthermore Bernard (1987) suggested with the importance of social acceptance, youth may formulate relationships with certain peer groups, who achieve status through illegitimate means. I will utilize the variable of friendship to see if perceived relationships with friends or social group are associated with levels of aggression. If negative or positive friendships or group bonds affect adolescent level of aggression, we should see an association between these variables.

Finally, it is expected that parents who provide clear rules will have an effect on levels of aggression (Bjarnason, 1998; Bjarnason, 2009). Furthermore, he suggests that weak and problematic parenting can contribute to the development of aggression and deviant behaviours. This type of reasoning can also be found in other sociological theories such as differential association theory (Sutherland & Cressey, 1966) and social control theories (Hirschi, 2002). Both theories suggest that strain and the bonds which strengthen criminal behaviours, between peers, can be alleviated or diminished by parents who communicate positive and supportive messages. Social controls such as parenting bonds have the ability of preventing delinquency (Hoffman, 2003). This study will also

explore the associations between nurturing parents, disorganized parents and aggression, to build on previous anomie literature.

## **Chapter 2: Literature Review**

The introductory chapter briefly lay out the hypotheses of the study and the following chapter is a comprehensive review of previous literature and research on adolescence, anomie and aggression. I will first review the literature of anomie by focusing on how the concept changes over the time and how the concept may be fruitfully examined to relate to adolescent stress and aggression.

### **Anomie: A Historical Review**

The theory of anomie was one of the first sociological theories ever developed. The word was first heard of in the 1500's, and the Greek etymology of the word "anomy" is as follows: "A" means "without" and "nomos" means "laws". Thus, anomie was originally defined to mean without law or social order ("Anomy", n.d.). This is a concept that Emile Durkheim continued to define in his work *Suicide* (1951).

The following paragraphs will describe 1) Durkheim's (1951) anomie theory and the effects of social transitions on the anomie condition; 2) Mertonian (1938) anomie and institutional anomie theories (Messner & Rosenfeld, 1997); 3) radical anomie (Horton, 1964), and alienation (Dean, 1961; Seeman, 1959); 4) anomie and social institutions (Bjarnason, 1998 & 2002; Durkheim's, 1951 ); 5) exteriority and constraint (Bjarnason, 1998 & 2002); 6) individual anomie (Hoffmann, 2003); and 7) the definition of anomie for the purposes of this research.

### **Durkheim's Anomie Theory**

Emile Durkheim (1858-1917) was a French sociologist who was responsible for the development of the concept of anomie. Durkheim (2005) theorized that a functional society was on a fulcrum, a balance between altruism and egoism (Bjarnason, 2009;

Durkheim, 2005). The concepts of balance between altruism and egoism are important to understand anomie.

First, altruism is defined as a being connected to society, or as having a patronage of society (Durkheim, 2005). In other words when people are altruistic, they support societal ideas. Second, on the opposite end of the fulcrum, people are egoistic or self-centered and do not considering anyone else when making decisions (Durkheim, 2005). Durkheim concludes in this essay that people are divided between these two fulcrums.

Durkheim, (2005) suggests that people connect the dualism between the altruism and the egoism when they influence the world and allow for it to affect them in return. In other words, we have attachment to both egoism and altruism, so there is no “absolute egoism” or “absolute altruism” (Durkheim, 2005, p.36). However, individualism and being part of a collective can be contradictory and can sometimes cause an internal struggle, which in turn, can leave an individual with a feeling of normlessness or powerlessness (Durkheim, 2005). Egoism and altruism are basic concepts in Durkheim anomie theory but the theory fails to explain what is meant by the feeling of normlessness and powerlessness.

### **Anomie and Transition**

In *Suicide* (1951), Durkheim began to look closer at the effects of normlessness on individual and the resulting “ANOMY” condition. A question of primary investigation was: What happens to an individual if they do not feel connected to society and have little altruism? Durkheim (1951) sought to better understand the anomic conditions that result when an individual is in a transitional state, where they are

transitioning from heightened levels of altruism to an anomie state that lacks norms (Durkheim, 1951).

Durkheim (1951) theorized that positive and negative transitions within the economy, marriage and societal structure resulted in more suicides within society. His theories are logical in that transitional periods are often periods where individuals do not have a consensus or solidarity in societal norms, a period where there is a break in a “conscience collective” (Art et. al., 1995, p.2). Therefore, it makes sense that members of society would be more likely to experience anomie when society is undergoing transition and there is a lack of collective consensus.

In other words, anomie is caused by the ambiguity of constantly changing societal standards, divergence between established societal goals and accomplishments, and evolutionary changes of a society. Consistent within the literature is the concept that anomie is the removal of a collective ideology leaving a society disconnected from one another (Art et. al.1995; Berkman, Brissette, & Seeman, (2000); Bjarnason, 2009; Durkheim, 1951; Krivosheyev, 2004; Vowinckel, 2000; Zhao & Cao 2009).

Vowinckel (2000) interpreted Durkheim’s work to explain societal constraints as a discrepancy between societal duty and a personal ability, suggesting that these social constraints cause individuals to separate from the collective and the societal institutions that held them together. These constraints cause individual feelings of unhappiness. Vowinckel (2000) discussed Durkheim’s theory of religion and how religious practices offered a communal devotion and fostered a sense of the collective conscience. As society becomes more scientific in its beliefs, the religious ties that once bonded the community began to dissolve, and the collective conscience decreased as a result.

Vowinckel (2000) suggests that the social institution of religion was replaced by moral virtues of the elite. He further suggests that new social morals were developed from the self interests of the middle class in their attempt to become elite.

According to Vowinckel (2000), Durkheim viewed social morals as being established based on self interest. Individuals will be committed to the collective conscience when their self-interests are aligned with the interests of the community. In a society where the interests of the community and the self-interests of its members are not harmonious, there is no collective conscience. Such a society would be faced with a lack of common rules, goals, purpose, norms, and its members will be left with feelings of depression and discouragement.

Consequently, when self interests override the collective conscience, individuals experience anomie (Vowinckel, 2000). Durkheim believed that societies must have a “moral education which teaches a child that happiness is not about the achievement of power, knowledge, or wealth but in finding achievable goals” (Vowinckel, 2000, p.454). It was also suggested by Vowinckel (2000) that it was not the individual who should be regulated to fit a society but the society should be regulated to fit the individual.

Vowinckel's (2000) interpretation of Durkheim's anomie theory is important because it pinpoints that the anomic condition occurs when a person becomes disconnected from society. Individuals experience normlessness because they feel different from other members of society. In examining Durkheim's theories of normlessness, Vowinckel (2000) discusses how conformity to moral laws is a natural evolution within society; however, he points out that social institutions establish social

desires that are not always congruent individual desires, causing conflict within an individual.

The above anomie theories examine societal transitional periods but fail to examine the transitional state that occurs during individual physical development, which tends to be a state rife with ambiguity. During the most prominent periods of physical development, many individuals may experience a divergence between established child like goals and new adult goals, and thus they may experience anomie.

### **Merton's Anomie Theory**

In 1938; Merton borrowed the concept of anomie and applied it to explain why America had a higher crime rate than other comparable societies. Consequently, he also altered the meaning of anomie. Merton's theory differed from Durkheim's because it focused more on materialistic ambition within a pluralistic society (Figueira-McDonough, 1983; Zhao & Cao 2009). Merton looked at the way people felt about their lives, and how they approached things, often becoming more opportunistic, self serving and developing a stronger belief in illegitimate means rather than the consensus or societal constructs of legitimate means (Art et. al., 1995).

As a result, Mertonian anomie examines how crime increases when cultures encourage goals over means and how crime decreases when cultures encourage means over goals (Bernard, 1987). Bernburg (2002) concluded that Merton's and Durkheim's theories differ because Merton defined anomie as an individual having cultural goals but not having the means to achieve them and Durkheim defined anomie as a lack of solidarity to cultural goals or the means to achieve this type of solidarity- because of the breakdowns of social institution that once maintained the solidarity.



Bernburg (2002) stated that Messner and Rosenfeld's (1997) "*instrumental anomie*" best describes Merton's theory of anomie: A condition created by the nature of social system. Bernburg (2000), however, also stated that instrumental anomie goes beyond Merton's theory and examines relationships between institutions that provide financial goal and the relationships between institutions that provide the ability to satisfy personal goals of education, family, etc. In other words, the focus on the financial goals may decrease personal satisfaction with their other goals (Bernburg, 2002).

Merton's ideas further differed from Durkheim's ideas because Durkheim's focal point was that anomie was associated with the breakdown of social institutions which provide social cohesion. Durkheim unlike Merton, believed that the inability to accept or adhere to a social institution (family, school, religion, political, etc.,) would leave individuals of this society with feelings of being normless (Durkheim, 1951).

Merton's theory of anomie affects how political policy research is done in the Twenty-First Century (Baumer & Regan, 2007). For instance, Baumer and Regan's (2007) research used data from the General Social Survey (GSS) and specifically measure monetary goals, and institutionalized legitimate means. The results of their research support the idea that crime rates increase when individuals have monetary goals but little to no legitimate means to achieve these goals (Baumer & Regan, 2007).

### **Instrumental Anomie**

Messner and Rosenfeld (1997) proposed the institutional theory of anomie that encompassed and elaborated on Merton's anomie theory. These authors presented the idea that "*Decommodification*" of labour decreases institutional anomie which decreases homicide rates. They tested this idea by studying cross-national measurements of how

much a society relies on the market place for economic survival and compared this statistic to homicide rates. In this Messner and Rosenfeld 1997 study, *Decommodification* was defined as occurrences where citizens have the ability to choose whether or not they become part of the consenting population, for example through marriage and, becoming educated. Decommodification operationally defined as the availability of social welfare programs, such as unemployment insurance, governmental disability pay and pensions. The authors defined institutional anomie as a consequential effect of money-oriented societal goals; that is, individuals experience an anomie condition when financial goals were considered to be more important than non-monetary goals. This anomie condition was not directly measured; however, homicide rates were measured as the dependent variable. The results indicated that as the provision of welfare programs increased, homicide rates decreased (Messner & Rosenfeld, 1997). The study is very unclear as to how homicide rates equal the anomie condition.

Jensen's (2002) research contradicts Messner and Rosenfeld (1992) *Decommodification of Labour Theory (DLT)* and Jensen (2002) disagreed with the idea that a more egalitarian market place would decrease homicide rates. Consequently, he argues that their arguments presented in the DLT are circular and spurious. Jensen (2002) suggests that the arguments were circular; because they simultaneously suggest that social institutions teach capitalism, but that the same institutions are weakened by capitalism. Jensen (2002) states that other theories may be better at representing changes in homicide rates.

In the current thesis, I will attempt to explore whether increases in access to financial means will attenuate the relationship between anomie and aggression.

**Radical Anomie**

Horton (1964) provides a unique comparison of Merton's anomie to Durkheim's anomie and suggests that researchers should examine individual psychological anomie and not the overall rejection of societal norms. Horton (1964) suggests that Durkheim's idea of anomie goes beyond Merton's idea of barrier existing between material goals and the legitimate opportunity to obtain these goods. Consequently, Horton (1964) chose to examine why individuals allow self-interest in material goals to exceed societal achievement in importance. Horton (1964) suggests that Mertonian theory is unsatisfactory because creating opportunities for legitimate success would not stop feelings of anomie from occurring, due to the fact that anomie is based on self interest and egoism.

Horton (1964) argues that anomie is a positive condition because it can contradict the altruism to a capitalistic society by decreasing institutional conformity. He presents us with the ideas that anomie and alienation were first established as a radical non-acceptance of establish societal norms. Furthermore, Horton (1964) presented the idea that anomie is the rejection of societal norms, and as such, may be a catalyst for social change. Therefore anomie is a necessary condition for social change to occur, and should not be looked at as a negative social condition. For Horton (1964), anomie was necessary, but he states it has a psychological impact on the individual which leads to feelings of normlessness, powerlessness and alienation from society.

Willis et al. (2002), talk about the positive and negative effects of anomie in their article on increased African-American adolescent males suicide rates in 1998. Willis et al. (2002) used Durkheim's anomie theoretical framework to explain the cause this

phenomenon. They stated that in modern society, African American men tend to experience more feelings of anomie, normlessness and helplessness. Their societal connections are decreasing because racial lines are dissolving. Willis et al. (2002) are suggesting that suicides are increasing because of anomie. Furthermore, anomie was created because these African American males are not altruistic to a racist society. Anomie in this example seems to be necessary and natural side effect of societal evolution and growth (Willis et al., 2002). Their results suggested that anomie might be necessary, even if the feeling associated with the condition led to increased suicide rates.

### **Anomie, Anomia and the Anomic Condition**

Durkheim's original anomie theory may address some of the emotional, but not the clinical psychological outcome of anomie. However, the literature review has revealed that Durkheim's Anomie has also been interpreted as individual feelings of meaninglessness, normlessness and purposelessness over time (Cao, 2004; DeKeseredy, Ellis & Alvi, 2005; Horton, 1964; Sani, Bowe & Herrera, 2008; Srole, 1956; Thorlindsson & Bernburg, 2004; Willis et al., 2002). Anomie thus became more interdisciplinary in the 1950's when Leo Srole developed the concept of anomia, a five item scale, to connect Durkheim's societal breakdowns and the individual's state of mind (Deflem, 1989). This concept of anomia provides researchers with the ability to measure anomie within the individual; however, this concept is not without criticisms.

Deflem (1989) points out that Srole did not investigate anomia "in its relation to the social state of anomie" (p.632) and that there is an assumption that there is "a reciprocal relationship between anomia and anomie" (p.632). In this study, I suggest that

individual physical change during puberty is common to all to adolescence which results in a state of anomie and a breakdown of previous accepted societal rules for kids.

### **Anomie and Alienation**

In the mid 1900's, anomie and alienation had several shared concepts within the sociological literature (Horton, 1964). Alienation, like anomie, is sometimes defined as powerlessness, normlessness and social isolation (Dean, 1961; Seeman, 1959). Dean (1961) argues that alienation theory is deeply rooted in Durkheim's theory of anomie. The idea of powerlessness can be defined as an individual not having power over their own destiny (Dean, 1961; Seeman 1959).

Dean (1961) and Seeman's (1959) work on alienation led to the following two conditions of normlessness: 1) to be without a purpose or have an absence of direction; 2) to have competing norms, resulting in ambiguity in which one to follow. These normlessness conditions correspond with other authors' definitions of the same term (Art et. al., 1995; Bjarnason, 2009; Durkheim, 1951; Krivosheyev, 2004; Vowinckel, 2000; Zhao & Cao 2009). From this, it is clear that normlessness remains the same in the 1960s as it was when it was originally defined by Durkheim (1951).

### **Anomie and Social Institutions: Exteriority and Constraint**

Bjarnason (1998) developed a measurement called *The Anomie Scale of Exteriority and Constraint (ASEC)*. Anomie in this research was conceptualized as exterior or a constraint. He defines "exteriority" in his research as a person's ability to see the world with purpose, while knowing and having the ability to envision and obtain goals.

Bjarnason's (1998) study revealed a relationship between parenting roles, religious participation, divine support, exteriority and constraint, in adolescents aged 15-16 years old. Bjarnason (1998) suggests if adolescents had ties to social institutions, they are less likely to experience criminal acts, the use of drugs, family difficulties, physical ailments and psychological trauma. He uses the Durkheim Anomie theory to examine the value of social institutions in providing individual regulation as opposed to an anomie. He further explained the concept of exteriority as being associated with depression, and low self esteem. According to the Bjarnason (1998), "constraints" are defined as a person's devotion to societal rules. The concept of constraint is associated with an increased probability of smoking, illicit drug use, truancy and suicide. Bjarnason (1998) believes that for anomie to exist within an individual there has to be a lack of exteriority and constraint at the individual level. Similar to Durkheim's earlier theories of the social condition, Bjarnason (2009) also addresses the balance between anomie and egoism. He looks at non-clinical depression and lack of self-esteem as a measurement of individual anomie and how parental support enhances an adolescent's well-being. Incompetent parenting is often a factor in the development of the anomie condition (Bjarnason 2009; Hoffmann, 2003; Junger-Tas, Ribeaud, & Cruyff, 2004).

### **Anomie at the Individual and Interdisciplinary Level**

Anomie is both an individual condition and a condition of the collective. Recall Durkheim's, (1951) idea that being an individual and being part of a collective society is contradictory and has the potential to result in an internal struggle for the individual. This, in turn, can result in feelings of normlessness or powerlessness.

Hoffmann (2003) talks about connecting community- level research with the individual level. In his work Hoffmann (2003) mentions that Durkheim attempted to create linkages between community level desires and individual level desires. Furthermore, he discusses how social disorganization is a multi-level concept that should be examined at both the communal level and the individual level. He stated that the multi- level method of empirical testing is believed to be best because it can examine the linkages between how an individual's desires can affect society as well as how society has an effect on the individual's desires.

From Durkheim's (1951) theoretical framework on anomie and suicide to the more recent work of Menard (1995), it has become clear that the research methodologies used to better understand the concept of anomie are interdisciplinary. Berkman, Brissette, and Seeman (2000) focused on the intersections between Durkheim's social integration, alienation and anomie theories, as well as John Bowlby's attachment theory. They demonstrated that connections can be made between the physical, psychological and the social effects of anomie. Furthermore, they highlight in their research that the causes of suicide are different depending on the discipline providing the rationale. For instance, sociologists and psychologists would potentially cite the causes for suicide as very different from one another. The authors argue that the use of many disciplines in explaining a phenomenon can help establish the cause of disorders and diseases more effectively. They did their literature review with the intent of aiding professionals in making correct diagnoses, in developing preventative methods, in developing future frameworks that examine social cohesion and resulting medical policies, and in understanding how societies influence functions such as physical development.

### **Significance of Adolescent Anomie**

According to the above literature review, I would suggest that an individual who is experiencing anomic condition may have rule ambiguity, absence of purpose, and feelings of normlessness (Dean, 1961; Sani, Bowe & Herrera, 2008; Seeman, 1959; Srole, 1956; Thorlindsson & Bernburg, 2004; Willis et al., 2002). They may be unsure of their purpose and have difficulties in identifying or achieving means and goals (Cao, 2004; DeKeseredy, Ellis, & Alvi, 2005; Thorlindsson & Bernburg, 2004; Willis et. al., 2002). Youth, who are in a state of transition where there is a lack of clarity, will be more susceptible to anomie, and moreover, they will also be more susceptible to deviance (Thorlindsson & Bernburg, 2004; Willis et. al., 2002). Deviance can be a reaction to the struggle for purpose, allowing adolescents to find identity in delinquency.

The identification or the focus on strains during adolescence does not take away from the effects of strains which are connected with socioeconomic, cultural and social conditions. The recognition of adolescent anomie is an attempt to understand one of many motives for youth deviance. Fowler and Warner (2003) are correct to point out through Agnew's strain theory that there are many outside forces especially the availability of alternative goals and lack resources that affect deviance and criminal activity levels. The recognition of adolescent anomie, however, as a natural source of strain, connects the biological and sociological explanations of youth deviant behaviours.

During the transitional period, adolescents are more sensitive to feelings of strain, and they do not have the life skills or tools to deal with or adjust to the constraints (Thorlindsson & Bernburg, 2004). Without these abilities, adolescent are at a higher risk for bewilderment and these higher levels of confusion and uncertainty are what makes



deviance more prevalent for adolescent (Thorlindsson & Bernburg, 2004). The higher rate of delinquent behaviour in adolescents has been established by many studies (Junger-Tas, Ribeaud & Cruyff, 2004). Delinquency may not be the most suitable way of attempting to develop personal identity and new norms, but many adolescents may choose to act in this way as a means of establishing a purpose in their lives.

Though considered to be an inappropriate response to the transitional period of adolescence, deviance is positive in that it may relieve and alleviate the chaos of the unknown, offering a sense of comfort. Anomie occurs because adolescents are searching for meaning and purpose (Thorlindsson, & Bernburg, 2004). Hence, it is important to acknowledge that the existence of adolescent anomie happens in the process of resolving delinquent behaviours among adolescents.

### **Psychological Developmental Research**

One of the main enquiries of this thesis is exploring the associations between the anomic condition and aggressive behaviour. In the process, this association of physical change with the anomic condition will be explored too. It is noted that psychological developmental research, however, has associate transitional stress to physical change, depression and aggression (Koenig & Gladstone, 1998; Mendle et al., 2010; Obradović & Hipwell, 2010; Rudolph & Hammen, 2011; Rudolph, 2008; Susman, Dockray, Granger, Blades, Randazzo, Heaton & Dorn, 2010; Weichold et al., 2007).

The next section of the literature review will review psychological developmental research. I will attempt to develop an interdisciplinary comprehension of youth and the associations among physical change, anomie, and youth crime. The recognition of adolescent anomie in both disciplines as a normal part of the adolescent transitional

period is important and sociologists and psychologists will develop a common understanding of adolescent behaviours and motivations.

### **Physical Change is a Transition**

Adolescence is a time when youth are in search of identity: a “sameness” or “connection” to the adult world (Erikson, 1968). The development of identity is a biological, psychological, emotional, spiritual, and sociological alteration, driving children to change the customary, habitual routines which their parents have provided them (Ruble & Brooks-Gunn, 1982). The shift is often described as being frightening, confusing and difficult, with emotional responses and feelings of abnormality, being out of place, and “a change in societal state” (Bell, 2003, pp.41).

Weichold, Büttig, and Silbereisen (2007) describe adolescence as a time when youth become individuals through the following three stages: the gaining of autonomy or separation from parents, the obtaining of influence within the family, and finally gaining an emotional connection or connectedness within their family. They state that detachment from established social institution can result in the feelings normlessness and powerlessness (Art, Hermkens, and Van Wijck, 1995; Bjarnason, 2009; Durkheim, 2005; Krivosheyev, 2004; Vowinckel, 2000; Zhao & Cao 2009). Consequently, the transitional stress of physical change may be directly related to the conditions of anomie.

### **Transitional Stress**

The transitions of physical change are associated with stressors in youth. Research has shown that physical development often referred to as puberty are connected to depression, aggression, anti-social behaviours and issues of psychosocial adjustment (Koenig & Gladstone, 1998; Mendle et al., 2010; Obradović & Hipwell, 2010; Rudolph,

2008; Rudolph & Hammen, 2011; Susman et al., 2010; Weichold et al., 2007). This stress has often been referred to as transitional stress, which can be defined as “stress imposed by ambiguity related to individualization and destandardization of roles that accompany periods of change like puberty” (Susman et al., 2010, p. 558). Susman et al. (2010) also revealed that transitional stress is connected to aggression, especially in males. They revealed in their study, that while males went through physical development they had a larger increase of cortisol production and that there was an association between the increase of cortisol and the increase of antisocial behaviours (Susman et al., 2010). These feelings of aggression are often related to future deviant behaviour, and/or increases in antisocial behaviours (Obradović & Hipwell, 2010; Susman et al., 2010).

Weichold et al., (2007) addressed the idea of the necessity of transitional stress during the individualization process and suggested that, at the individual level transitional stress usually ends when youth reconnect to their families. They state the three phases of transition were separation, control, and connection and that these are temporary phases, resulting in the last stage of connection (Weichold et al., 2007). However, in Najman et al.'s 2009 study, early or late puberty in females had long term consequences of aggression and delinquency. With these results in mind, transitional stress is regarded as natural and it may create a gap for youth because the stress may elevate levels of depression, aggression and anti-social behaviours. These ideas are similar to Horton's (1964) concept of radical anomie, which suggested that anomie is necessary for change, but may have many individual hazards.

**Females vs. Males**

According to Susman et al., (2010), pubertal transitional stress increased levels of aggression and external conflict in males, but not in females. On the other hand, Najman et al., (2009) argues that aggression increases for both males and females during the transition through puberty. Most research on the effects of physical change has revealed that the transitions through these physical changes causes heightened levels of depression and internal conflicts in females (Koenig & Gladstone, 1998; Obradović & Hipwell, 2010, Weichold et al., 2007). Females have higher stress levels than males – especially in their personal relationships – because they look to these relationships as a source of “emotional support and perhaps personal identity” (Rudolph & Hammen, 2011, p.662).

Research has also revealed that the rate at which females undergo physical change is different from that of males and typically females develop faster than males (Mendle et al, 2010). Furthermore, Susman et al. (2010) found males more likely to externalize transitional stress and females are more likely to internalize transitional stress. Thus, since females develop faster and express transitional stress differently than males, I hypothesize that gender will affect the associations between physical change and anomie differently.

**Timing of Puberty**

Psychological developmental research suggests males will experience increases in transitional pubescent stress if they mature slower or faster than the norm for other males (Susman et al., 2010). While other authors stated that it is beneficial for males to have early maturity due to their increases in body weight, which would typically improve their confidence and make them more active in sports (Mendle et al., 2010).

Research on female reaction to the timing of puberty has mixed results ranging from no effect to an increase in transitional pubescent stress if they entered into puberty early (Obradović & Hipwell, 2010; Ruble & Brooks-Gunn, 1982; Rudolph, 2008; Susman et al., 2010; Weichold et al., 2007). Furthermore, females had an increase in pubescent stress if they were unprepared for this transition, or viewed it as a negative event in their life (Koenig & Gladstone, 1998). I examined the relationship with Pearson's correlation matrix to determine if the timing at which one underwent physical changes was associated with the anomic condition.

### **Internalization and Externalization**

In this section of the literature review, I examine the concept of internalization and externalization. The literature review seems to suggest that the psychological concept of internalization has many similarities to the anomic condition. However, the anomic condition is different from the concept of internalization because it is a condition where youth will fail to internalize social norms (Thorlindsson & Bernburg, 2004). This ambiguity of societal regulation creates feelings of meaninglessness, depression, normlessness, purposelessness, and powerlessness (Bjarason, 2009; Dean, 1961; DeMan & Leduc, 1995; Durkheim, 1951; Seeman, 1959).

Psychologists have attempted to measure psychosocial adjustment into adulthood in youth by utilizing the constructs of internalizing and externalizing. Internalizing generally refers to being withdrawn, experiencing somatic symptoms and being anxious. Conversely externalizing generally refers to feelings of aggression (see Ivarsson et al., 2005; Sprott & Doob, 2000, for study examples). A number of protocols by psychologists are used in order to measure internalizing and externalizing in both clinical

and community populations. An example of such instruments is the Youth Self Report (YSR). The YSR is a widely used self-report measure of both social competence and behavior problems in youth 11-18 years of age. Reliability and validity of the YSR have been extensively documented in both clinical samples and school-aged youth from the general population (Achenbach, 1991). The internalizing scale is comprised of withdrawn behaviors (e.g., I refuse to talk, I am under-active), somatic complaints (e.g., aches and pains without known medical causes), and anxious/ depressed behaviors (e.g., I am sad; I am too fearful or anxious).

Although some items that are utilized in this thesis have sometimes been utilized to measure certain aspects of internalizing behaviours, the work presented in this study builds on the insight that adolescent transitional stress or adolescent anomie may be related to aggressive behaviour. In doing so, the explorative factor analysis is used to select the items that underlie the concept of anomie. Some of these symptoms may overlap with the internalizing, but they are not internalizing. This study will demonstrate that these symptoms are consistent with the prior literature of anomie and thus can be labeled as anomie. Furthermore, this study examines whether social institutions such as the family, one's peers, and the access to money will attenuate the relationship between the anomie and aggression.

### **Chapter 3: Methods**

This chapter will describe the data and variables of the analysis. In order to better study the relationship between adolescent anomie and aggressive behaviour, I decide to make use of a secondary data set. I will first describe the sample and then detail the variables one by one.

#### **The Sample**

The data are from the National longitudinal Survey of Children and Youth (NLSCY), which is a Canadian longitudinal study of children and youth. It is co-sponsored by Human Resources Development Canada (HRDC) and Statistics Canada (Statistics Canada, 1999). The survey was created to examine youth wellbeing and the factors which influence their lives, such as social, emotional, health development as well as their peer, parental, and school relationships. The NLSCY was administered in cycles: Cycle 1 took place in 1994-95; Cycle 2 in 1996-97 and Cycle 3 in 1998-99. These cycles were developed to follow children from newborns to 11 year olds, and into adulthood. The original NLSCY cycle 3, had a sample size of 31963 respondents, this research is limited to the use of a cross-sectional data of the NLSCY Cycle 3: the self-reporting data of 5500 youth ages 10-15.

The home and children for the NLSCY were chosen from a random sample, selected from the Statistics Canada's Labour Force Survey (LFS) during the first cycle in 1994-95. Thus, some of the youth in the longitudinal sample for cycle 3 may have been lost to attrition. The cross section data of the NLSCY Cycle 3: the self-reporting data of 5500 youth ages 10-15, was completed with a self-completed questionnaire. This

questionnaire was done in the respondent's home, often with a parent and interviewer present and ready to help..

### **Variables**

The National Longitudinal Survey of Children and Youth, 1998-1999 [Canada]: Cycle 3 is rich in variables that might be utilized in this study. Since many of the key concepts are multiple dimensional and nuanced, their representations in this research are consisted of multiple items because these items share an underling theme, such as anomie and aggression.

**Physical change variables.** Previous research on physical change measured breast development (Mendle et al.,1982; Obradović & Hipwell, 2010; Susman et. al., 2010; Weichold et al., 2007), facial hair development, body hair development, public hair development (Koenig & Gladstone, 1998; Obradović & Hipwell, 2010; Susman et. al., 2010; Weichold et al., 2007). The data of NLSCY (self-report cycle 3) contain these variables. Since males and females have different symptoms of physical change, they are measured separately. One common question was asked for both males and females: “Would you say that your body hair (“body hair” means underarm and pubic hair) has begun to grow?” (CPUCQ01). For females only, “Have your breast begun to grow?” (CPUCQ02) and “Have you begun to menstruate (your month period)?” (CPUCQ03). For males only, “Have you noticed a deepening of your voice?” (CPUCQ04) and “Have you begun to grow hair on your face?” (CPUCQ05).

The following variables CPUCQ01, CPUCQ02, CPUCQ04, and CPUCQ05 are ordinal variables. Scaled with, 1= Has not yet started growing, 2= Has barely started



growing, 3= Growth of body hair is definitely underway, 4= Growth of body hair seems completed. The CPUCQ03 variable is nominal and dummy coded 0= No and 1= Yes.

**Anomie.** Sixteen items that represented the symptoms of anomie are selected for confirmatory factor analysis. The results indicate that there are three factors in these sixteen items. It seems that these three factors may fit into the literature of anomie because they seem to represent the concepts of normlessness, purposelessness and meaninglessness – all of them are components of anomie in the literature (Bjarnason, 1998 Bjarnason, 2002; Dean, 1961; Hoffmann, 2003; Seeman, 1959). Thus, anomie for the purpose of this research is focused on the individual condition that composed of 1) feelings of meaninglessness, (2) feelings of normlessness, and (3) feelings of purposelessness. The reliability of the three components are .623 for the feelings of normlessness (3 items); .704 for the feelings of meaninglessness (5 items) and .793 for the feelings of purposelessness (8 items). These three variables are became the study's measurement of anomie (see Table 1).

It is noted that some of these 16 items that appear in the NLSCY are sometimes being utilized by developmental psychologists and criminologists to explore the concept of internalizing (e.g., Sprott & Doobs, 2000). As noted by Berkman, Brisette, and Seeman (2000), the causes of different psychosis are often viewed differently based on the discipline providing the rational. These factors can be indicative of psychological disorders and thus, psychologists and sociologists would potentially cite the causes as different from one another.

**Table 1:** Factor structure achieved through an exploratory factor analysis: Rotated Oblimin Structure Matrix

Question	Factor 1 Purposelessness	Factor 2 Meaninglessness	Factor 3 Normlessness
Can't sit still, am restless	<b>.655</b>	.031	-.236
I am easily distracted	<b>.699</b>	.303	-.439
I fidget	<b>.655</b>	-.001	.333
I can't concentrate, can't pay attention	<b>.700</b>	.302	-.200
I cannot settle to anything for long	<b>.625</b>	.147	-.261
I stare into space	<b>.539</b>	.237	-.335
I am inattentive	<b>.685</b>	.315	-.254
I am impulsive, act without thinking	<b>.548</b>	.272	-.210
I have trouble enjoying myself	.271	<b>.688</b>	-.326
I am unhappy, sad or depressed	.263	<b>.693</b>	-.439
I feel miserable, unhappy, tearful	.280	<b>.682</b>	-.584
I am not as happy as other people my age	.291	<b>.745</b>	-.320
I am rather solitary	.139	<b>.455</b>	.052
I am too fearful or anxious	.377	.190	<b>-.636</b>
I worry a lot	.221	.236	<b>-.637</b>
I am nervous, high strung or tense	.369	.244	<b>-.713</b>

It is noted that some of these 16 items that appear in the NLSCY are sometimes being utilized by developmental psychologists and criminologists to explore the concept of internalizing (e.g., Sprott & Doobs, 2000). As noted by Berkman, Brissette, and Seeman (2000), the causes of different psychosis are often viewed differently based on the discipline providing the rationale. These factors can be indicative of psychological disorders and thus, psychologists and sociologists would potentially cite the causes as different from one another.

**Aggression.** The variable aggression is consisted of six items from NLSCY. The six aggressive items are as followed: (CFBCQ01G) “I get into many fights”; (CFBCQ01L) “I destroy things belonging to my family or other young people”; (CFBCQ01X) “When another kid accidentally hurts me I assume that the other kid meant to do it, and I react with anger and fighting”; (CFBCQ1FF) “I threaten people”; (CFBCQ1JJ) “I am cruel, bully or am mean to others”; (CFBCQ1NN) “I kick, bite, hit other people my age.

These six variables are scaled to create one logical variable called aggression, reliability  $\alpha = .740$ . Aggression was measured as: 1= Never, 2= Sometimes true and 3= often or very true.

**Parenting.** This variable will capture parenting as a social institution and if it attenuates aggression. Factor analysis was used to explore items forming the parenting variables, see Table 9 for results. The following factors emerged from the analysis are nurturing parenting that provide clear rules and disorganized parenting who provide ambiguous rules.

The “Nurturing Parenting Variable” has 4 items and a reliability alpha of .624 and the “Disorganized Parenting Variable” had 5 items and a reliability alpha of .638. All parenting variables are ordinal and ranked the nurturing parenting and disorganized parenting 1= Never, 2= Rarely, 3= Sometimes, 4= Often, 5= Always (see Table 2)

**Table 2:** Factor structure achieved through an exploratory factor analysis: Rotated Oblimin Component Matrix

Variable	Disorganized Parents No clear rules	Nurturing Parents with clear Rules
My parents want to know what I-m doing.	.026	<b>.673</b>
My parents tell me what time to be home.	.010	<b>.686</b>
Parents find out about my misbehaviour.	.054	<b>.560</b>
My parents interested in whom I-m with.	-.059	<b>.632</b>
My parents keep rules when it suits them	<b>.696</b>	.012
My parents nag me about little things.	<b>.480</b>	.133
My parents forget a rule they have made.	<b>.585</b>	-.326
Parents threaten to punish more than do.	<b>.480</b>	.087
Parents enforce rule depending on mood.	<b>.722</b>	.080

**Access to money variables.** Two money variables will be used within the Regression Analyses: Access to Money over 13, and access to Money 13 and under. There are two different money variables because the NLSCY measured these two age groups with different variable values. Money over 13 was ranked with [1] No Money, [2] \$1 to \$20, [3] \$21 to \$40, [4] \$41 to \$60, [5] \$61 to \$100, [6] more than \$100. Money 13 and under was ranked with [1] No Money, [2] \$1 to \$10, [3] \$11 to \$20, [4] \$21 to \$30 (See Appendix 1 for original variables).

The reliability for access to money for youth over 13 years of age: money from parents, jobs, other and odd jobs, was .329. Although the reliability was low, these four variables were scale and became the study's measurement of access to money for youth over 13 years of age.

Money of variables for ages over 13: Money from parents, job, other and odd job, also had low reliability of .358. Although the reliability was low, these four variables

were scale and became the study's measurement of access to money for youth 13 and under.

**Friendship variable.** The variable "Friendship" with an alpha of .793 was constructed from the following from three variables from the NLSCY: (CFFCQ02) "I get along easily with others my age"; (CFFCQ03) "Others my age want me to be their friend"; (CFFCQ04) "Most other my age like me". . Each of these individual measurements ranked the strength of friendships from: [1] False, [2] Mostly false, [3] Sometimes false/ sometimes true, [4] Mostly True, [5] True (See Appendix 1 for original variables)

**Demographic variables.** Gender and age are in the regression model to observe if these demographics mediated a relationship with aggression. The NLSCY survey has an equal number of youth males and the number of youth females in the survey: Males surveyed (2763) 49.9% and Females surveyed (2776) 50.1%. Furthermore it also asked equal amount of each age group to participate: 10 to 11 years old (1833) 33.1%, 12 to 13 years old (1849) 33.4% and 14 years and over (1857) 33.5%.

## **Chapter 4: Results**

The following section describes the results of Pearson correlation for Hypothesis One and the multiple regression analysis for Hypothesis Two. The first hypothesis is that physical changes such as body hair growth, facial hair growth, voice change, breast development and menarche are associated with the anomic condition. Hypothesis One will be examined by presenting a Pearson correlation analysis that addresses the question: Do developmental physical changes have an association with the anomic condition? The expected results are that biological physical changes are expected to be associated with the anomic condition.

The multiple regression analysis is used in order to test Hypothesis Two, which suggests that the anomic conditions affect aggression and that this relationship is also affected by social institutions such as parenting, peer relationships and access to money. Furthermore, that the social institution such as relationships with both nurturing and disorganized parenting changes how the anomic condition effect aggression. Also, it is expected that access to money will alter the anomic condition and its relationship with aggression.

### **Hypothesis One “Physical Change and Anomie”**

To test Hypothesis One, the following questions are investigated: Is physical change associated with the anomic condition? Is this association stronger or weaker for males or female? Is this association stronger or weaker for older or younger adolescence experiencing biological changes? The results are separated by gender because the physical change markers for males and females are different.

We will first present the descriptive statistics for all variables for males before we examine the correlation matrix. Then we will do the same for females.

**Males.** There are 2763 males in the National Longitudinal Survey of Children and Youth, 1998-1999 [Canada]: Cycle 3, Self Complete (10-15)” (NLSCY). The mean value of purposelessness for males is 1.42 with a standard deviation of .37. The mean value for meaninglessness is 1.29 with a standard deviation of .36, and the mean value for normlessness is 1.16 with a standard deviation of .36 (see Table 10).

Furthermore, the body hair growth has a mean of 2.60 with standard deviation of .894. The deepening of a male’s voice has a mean of 2.33 with a standard deviation of .94. The development of facial hair has a mean of 1.87 with a standard deviation of .822 and male age was equally distributed between the ages of 10 to 11 years old [1], 12 to 13 years old [2], and 14 years old and over [3]. It seems that we have enough variability in these variables and they are all falling within the normal ranges.

**Table 3:** Descriptive Statistics for Variables in Hypothesis One (Males)

Variable	Means	SD	N
Purposelessness (Male)	1.42	.37	2406
Meaninglessness (Male)	1.29	.36	2496
Normlessness (Male)	1.16	.36	2510
Body Hair (Male)	2.60	.894	2420
Voice Changing (male)	2.33	.943	2537
Facial Hair (male)	1.87	.822	2526
AGE	2	.816	2763

**Pearson correlation ( $r$ ) matrix of the male anomic condition and physical change variables.** The Pearson correlation analysis was conducted to address the assumptions of Hypothesis One. As expected, all physical change items are statistically significantly associated with the anomic condition of normlessness ( $p < .01$ ). The directions of these associations are consistent with the theoretical expectation. The association ranges from a low level of .058 between facial hair and normlessness and a high level of -.132 between age of respondents and normlessness (see Table 11). The results indicate that the normlessness will decrease as males grow more body hair, deeper voices, more facial hairs, and an increase in age.

For meaningfulness, the associations hold for body hair, voice change, and age of respondent, but the association between facial hair and meaningfulness is insignificant. Again, the relationship between age and meaningfulness is the strongest (-.122).

**Table 4:** Pearson Correlation Matrix of the Male Anomic Conditions, Body Hair, Voice Change, Facial Hair and Age of Male Respondent

		Body Hair	Voice Change	Facial Hair	Age of Respondent
Normlessness	Correlation	-.082**	-.083**	-.058**	-.132**
	Sig (2-tailed)	.000	.000	.004	.000
	N	2284	2380	2371	2510
Meaninglessness		-.058**	-.071**	-.038	-.122**
		.006	.001	.066	.000
		2277	2374	2360	2496
Purposelessness		-.039	-.053*	-.001	-.074**
		.066	.011	.952	.000
		2196	2287	2276	2406

2-tailed analysis ( $p < .01$ ) \*\* & ( $p < .05$ )\*



Finally, for physical change items and the variable purposelessness, only voice and age are statistically significant while body hair and facial hair are not statistically significant. The association between age and purposelessness and age is stronger than the association between voice and purposelessness.

**Females.** There are 2776 females who in the NLSCY, self-reporting cycle 3, who answered the anomic condition questions and the physical change items. Female normlessness has a mean of 1.27 with a standard deviation of .38. Meaninglessness has a mean of 1.32 with a standard deviation of .36 and purposeless has a mean of 1.41 with a standard deviation of .36 (see Table 12).

Female development of body hair has a mean of 2.90 with a standard deviation of .99. Breast development has a mean of 2.66 with a standard deviation of .742. Furthermore females in the study are equally distributed between [0] yes menstruation has started to [1] no menstruation has not started, with a mean of .46 and standard deviation of .5 and females are equally distributed between 10 to 11 years old [1], 12 to 13 years old [2] and 14 years and over [3].

**Table 5:** Descriptive Statistics for Variables for Hypothesis One (Females)

Variable	Means	SD	N
normlessness (Female)	1.27	.38	2521
meaninglessness (Female)	1.32	.36	2522
purposelessness (Female)	1.41	.36	2430
Body Hair Female	2.90	.988	2492
Breast Development	2.66	.742	2516
Menstruation (No=1)	.459	.498	2456
AGE	2.01	.816	2776

**Pearson correlation ( $r$ ) matrix of the female anomic condition and physical change variables.** The Pearson's coefficients are presented in Table 13. The results suggests that females' age, body hair growth, breast development and menstruation are all statistically significantly associated with the anomic conditions except the association between starting to menstruate and normlessness, but that these associations are positive, opposite to what are found among males. The strongest association is found between body hair and meaninglessness ( $r = .116$ ) and the weakest association is found between breast development and normlessness ( $r = .046$ ). The above results imply that the anomic conditions increase with as females get older, develop body hair, breast, and the start of menstruation.

**Table 6:** Two tailed Pearson Correlation Matrix of the Female Anomic Conditions, and Body Hair, Voice Change, Facial Hair and Age of Female Respondent

		Body Hair (female)	Breast Development	Started Menstruation (Yes=1)	Age of Respondent
Normlessness	Correlation	.080**	.046*	.040	.054**
	Sig (2-tailed)	.000	.024	.057	.000
	N	2340	2357	2303	2521
Meaninglessness		.116**	.107**	.077**	.091**
		.000	.000	.000	.000
		2348	2365	2314	2522
Purposelessness		.097**	.088**	.112**	.104**
		.000	.000	.000	.000
		2271	2297	2246	2430

2-tailed analysis ( $p < .01$ ) \*\* & ( $p < .05$ )\*

The results of testing Hypothesis One suggest that the associations between physical changes and anomic conditions are different for males and females. It appears that younger males have a higher association with the anomic conditions and older males have a lower association with the anomic condition. On the other hand, older females who experience physical changes have a higher level of anomic condition than younger females.

### **Hypothesis Two: Anomie and Aggression**

This section presents the results found for the following questions: Will the increased amount of feelings in purposelessness, feelings of meaninglessness and feelings of normlessness cause an increase in levels of aggression. Furthermore, will access to money, friendships, parenting typology mediate the anomic condition and its relationship aggression?

**Descriptive statistics.** The final sample size had 3401 respondents with complete information. Aggression has a mean of 1.03 with a standard deviation of .25. Feelings of normlessness have a mean of 1.22 with a standard deviation of .37. Feelings of meaninglessness have mean of 1.29 with a standard deviation of .35. Feelings of purposelessness have a mean of 1.41 with a standard deviation of .37. Nurturing parent who are making rules has a mean of 3.43 and a standard deviation of .59. Disorganized parents who do not create agreed on rules with their children have a mean of 2.15 with a standard deviation of .68. Friendships have a mean of 3.25 with a standard deviation of .59. Sex was split equally between males [0] and females [1], and the number of participants in each age group was also divided equally between 10 to 11 years [1], 12 to 13 years [2] and 14 years and over [3].

**Table 7:** Descriptive Statistics for Variables used in the Analysis (Anomie, Parenting, Friendship and Demographics)

Variable	Means	SD	N
Aggression	1.03	.25	3934
Normlessness	1.22	.37	3934
Meaninglessness	1.29	.35	3934
Purposelessness	1.41	.36	3934
Nurturing Parenting	3.43	.59	3934
Disorganized Parenting	2.15	.68	3934
Strength of Friendship	3.25	.59	3934
Age	2.10	.81	3934
Sex	.5	.5	3934

**Determinants of aggressive behaviourl (Anomie, Parenting, Friendship and Demographics).** This model explained 25.9% of the variation in aggression. Feelings of purposelessness on aggression resulted in an unstandardized coefficient (b) that was .148, ( $p < .01$ ), so as feelings of purposeless increased, aggression also increased. Feelings of meaninglessness on aggression yielded an unstandardized coefficient (b) of .099, ( $p < .01$ ), which indicated that as feeling of meaninglessness increased, aggression increased. The effect of normlessness on aggression was not significant. Nurturing parenting on aggression resulted in an unstandardized coefficient (b) of  $-.077$ , ( $p < .01$ ), so as nurturing parenting increased, aggression decreased. Disorganized parenting on aggression resulted in an unstandardized coefficient (b) that was  $.065$ , ( $p < .01$ ), so as disorganized parenting increased, aggression increased. Friendship on aggression resulted on an unstandardized coefficient (b) that was  $-.034$ , ( $p < .05$ ), as friendship decreased,

aggression increased. The sex of the child on aggression resulted in an unstandardized coefficient (b) that was  $-.522$ , ( $p < .01$ ), which suggests that females are less aggressive than males. The strength of age on aggression yielded an unstandardized coefficient (b) of  $-.255$ , ( $p < .01$ ), so as age increased, aggression decreased.

The standardized coefficients (betas) show that feeling of purposelessness had the strongest effect on aggression ( $\beta = .290$ ), above the sex of a child ( $\beta = -.175$ ), disorganized parenting ( $\beta = .146$ ), the age of the child ( $\beta = -.138$ ) nurturing parenting ( $\beta = -.121$ ), feelings of meaninglessness ( $\beta = .118$ ) and Friendships ( $\beta = -.038$ ).

**Table 8:** Determinants of Aggression Model 4 (Anomie, Parenting, Friendship and Demographics)

Variable	b	beta
Intercept	5.239	
Purposelessness	.148**	.290
Meaninglessness	.099**	.118
SEX (female=1)	-.522**	-.175
AGE	-.255**	-.138
Disorganized Parenting	.065**	.146
Nurturing Parenting	-.077**	-.121
Friendships	-.034*	-.038
Normlessness	.016	.012
Adjusted R square =.259		
F value =172.524**		

2-tailed analysis ( $p < .01$ ) \*\* & ( $p < .05$ )\*, N=3934

### Access to Money and Aggression

In order to test the theory if access to money can predict aggression, the age variable had to be removed from the model. This was done because in the original NLSCY respondents were separated into age groups prior to asking the money attainment

questions. The addition of both money variables was done through the following multiple regression analysis equations:

### Multiple Regression Analysis Equations.

Access of Money for youth 13 and under- Model A

$$\text{Aggression } \hat{y} = a + (\text{Anomie } b_{1X1} \text{ normlessness} + b_{2X2} \text{ meaninglessness} + b_{3X3} \text{ purposelessness}) + (\text{Parents } b_{4X4} \text{ nurturing parents} + b_{5X5} \text{ disorganized parenting}) + (\text{Friendship } b_{6X6} \text{ strength of friendship}) + (\text{Demographics } b_{7X7} \text{ respondent's sex}) + (\text{Money } b_{8X8} \text{ youth 13 and under}) + \text{error}$$

Attainment of Money for youth over the age of 13- Model B

$$\text{Aggression } \hat{y} = a + (\text{Anomie } b_{1X1} \text{ normlessness} + b_{2X2} \text{ meaninglessness} + b_{3X3} \text{ purposelessness}) + (\text{Parents } b_{4X4} \text{ nurturing parents} + b_{5X5} \text{ disorganized parenting}) + (\text{Friendship } b_{6X6} \text{ strength of friendship}) + (\text{Demographics } b_{7X7} \text{ respondent's sex}) + (\text{Money } b_{8X8} \text{ youth ages over 13}) + \text{error}$$

### Descriptive statistic for Access to Money vs. Aggression Regression Models.

There were 1,036 youth respondents ages 13 and under (see Table 9). Most respondents stated a mean of 1.24 and a standard deviation of .35. The mean value for access to money for those over 13 years old is 1.35 and a standard deviation of .46. The sample size is 1,343. These statistics indicate that those who are older have more access to money than those who are younger, but the within-group differences are larger too.

**Table 9:** Descriptive Statistics for Access to Money Analysis

Variable	Mean	SD	N
Money Access ages 13 and under	1.24	.35	1036
Money Access over 13 yrs	1.35	.46	1183

**Coefficients of Model A, Access to Money ages 13 and under.** In Model A, the variable access to money for ages 13 and under was added. The precision of Model A had the adjusted R<sup>2</sup> value was .265, which was very similar to the original model with the adjusted R<sup>2</sup> value of .259.

The statistics revealed in Table 10, suggest the original relationships seen the first regression model above is very similar to the relationships seen in Model A.

Normlessness was still insignificant, and as feelings of purposeless increased in the model, aggression increased, ( $p < .01$ ). Furthermore, as feelings of meaninglessness in the model increased, aggression increased, ( $p < .01$ ).

Increased nurturing parenting still seems to predicts decreases in aggression ( $p < .01$ ) in Model A and increases in disorganized parenting seemed to continue to predict increases in aggression ( $p < .01$ ). Also in this model, increases in peer relationships seem to decrease aggression ( $p < .01$ ), and males are more aggressive than female, ( $p < .01$ ).

The access to money variable for children 13 and under, revealed that as access increased, aggression increased, ( $p < .05$ ). As you can see from Table 10, the unstandardized coefficient (b) was .062 and the ( $\beta=.058$ ), revealing that access to money is a weak predictor of aggression in Model A.

The standardized coefficient beta values of Model A indicate that feeling of purposelessness is still the strongest predictor of variance in aggression at ( $\beta =.290$ ), followed by disorganized parenting ( $\beta=.160$ ); nurturing parenting ( $\beta =-.122$ ); feelings of meaninglessness ( $\beta =.115$ ); the sex of the child ( $\beta=-.115$ ); friendships ( $\beta =-.093$ ), and finally; access of money for youth over age 13 ( $\beta =.058$ ).

**Table 10:** Determinants of Aggression Model A (Anomie, Parenting, Friendships, Sex and Access to Money 13 years of age and under)

Variable	b	beta
Intercept	4.978	
Purposelessness	.149**	.290
Meaninglessness	.096**	.115
Disorganized Parenting	.071**	.160
Nurturing Parenting	-.080**	-.093
SEX (female=1)	-.337**	-.115
Friendships	-.080**	-.093
Normlessness	-.044	-.033
<b>Access to Money ages 13 and under</b>	<b>.062*</b>	<b>.048</b>

Adjusted R square =.259  
F value =39.736

\* $p < .05$  ; \*\*  $< .01$ , N=1036

**Coefficients of Model B, Access to money over 13.** In Model B, the variable access to money for over the age 13years was added. The precision of this Model B had the adjusted  $R^2$  value was .198, which was smaller than the original model with the adjusted  $R^2$  value of .259.

The statistical results revealed in Table 22, suggest the original relationships seen in the first regression model above is very similar to the relationships seen in Model B. Normlessness was still insignificant, and as feelings of purposeless increased in the model, aggression increased, ( $p < .01$ ). Furthermore, as feelings of meaninglessness in the model increased, aggression increased ( $p < .01$ ).

Increased nurturing parenting still seems to predicts decreases in aggression ( $p < .01$ ) in Model B and increases in disorganized parenting seemed to continue to predict



increases in aggression ( $p < .01$ ). Males are still more aggressive than females in this model ( $p < .01$ ), however, in Model B, friendships are not statistically significant.

The access to money variable for children over 13 years of age, revealed that as access increased, aggression increased, ( $p < .01$ ). As you can see from Table 22, the unstandardized coefficient (b) was .051 and the ( $\beta=.073$ ), revealing that access to money is a weak predictor of aggression in Model B.

The standardized coefficient beta values of Model B indicate that feeling of purposelessness is still the strongest predictor of variance in aggression at ( $\beta =.257$ ), followed by feelings of meaninglessness ( $\beta =.166$ ); the sex of the child ( $\beta=-.160$ ); disorganized parenting ( $\beta=.123$ ); access of money for youth over age 13 ( $\beta =.073$ ), and finally; nurturing parenting ( $\beta =-.069$ ).

**Table 11:** Determinants of Aggression Model B (Anomie, Parenting, Friendships, Sex and Access to Money over 13 years of age)

Variable	b	beta
Intercept	3.839	
Purposelessness	.114**	.257
Meaninglessness	.119**	.166
SEX Female [1]	-.427**	-.160
Disorganized Parenting	.050**	.123
<b>Access to Money Over 13 years of age</b>	<b>.051**</b>	<b>.073</b>
Nurturing Parenting	-.039**	-.069
Friendships	-.017	-.020
Normlessness	.022	.019

Adjusted R square = .198

F value = 42.485\*\*

\* $p < .05$  ;\*\* $< .01$ , N=1343

The results of testing Hypothesis Two suggest that anomic condition of purposelessness is the strongest predictor of aggression in all models. Meaninglessness is also a predictor of aggression and normlessness is not in all models. Nurturing parenting and disorganized parenting both predict aggression in all model. Furthermore, in Models A and B, it was revealed that access to money can be a statistically significant predictor of aggression for all ages. Next, friendship was revealed as a predictor of aggression in the original Model and in Model A, but not Model B. Finally the result of gender revealed that females are less aggressive than males, in all the regression models.

### **Discussion Chapter 5**

This study is the first attempt to link anomie with physical changes for adolescence. Connecting physical changes and the anomic conditions is a unique contribution because it represents an interdisciplinary attempt. This practice of connecting the biological changes, the individual self, and a sociological concept may offer us a different understanding of youth and their experiences.

The results of testing Hypothesis One suggest that anomie development is different for males and females: The Pearson correlations reveal that older males with more symptoms of physical developmental changes are associated with a decrease in the anomic condition whereas older females are associated with an increase in the anomic condition. It seems that the different reactions may be the results of the different timing of physical changes for males and for females. Our results and speculations are consistent with the findings of Obradovic and Hipwell (2010). These authors find that females and males experience transitional stress differently and that “social and biological experiences are linked to females’ behaviour adjustment” (p 631) because they are not as prepared as males are for physical developmental changes. In addition, they are consistent with Mendle et al.’s (2010) suggestion that physical developmental changes in males may enhance their self-confidence, increase their athletic ability, and decrease their transitional stress. However, Mendle et al.’s (2010), also suggest that a faster tempo of physical development may have heightened levels of depression. Rudolph and Hammen (2011) argue that younger females would have more transitional stress because they are less prepared than older females. Preparing youth before they go through physical

changes seems to lessen the emotional effects of these transitional changes (Obradovic & Hipwell, 2010).

Preparation is a factor which may contribute to the associations. The NLSCY, however, did not have any measure of preparation for these youth and I was unable to specify this association directly in my analysis. This is a limitation of my work and will need to be addressed in future research considerations.

In the psychological developmental research, males and females seem to have different social stigmas associated with physical developmental changes. Mendle et al.'s (2010) suggests with new physical developmental changes, males may have more acceptances into social institutions such as sports teams and dating relationships. Female physical change development on the other hand, is often associated with a rule ambiguity. Parents are not sure how protective they need to be when female children go through physical changes and behavioural rules often change during these physical developments (Obradovic & Hipwell, 2010). Thus, physical change development may cause established social institutions between parents and child to breakdown.

Hypothesis Two sought to determine whether the anomic condition can predict aggression. In the regression analysis normlessness is not a statistically significant predictor of aggression and thus I failed to reject the null hypothesis. The results indicated that the feeling of normlessness did not predict aggression. Purposelessness and meaninglessness, however, are both found to increased aggressive behaviour in my regression model.

Feelings of purposelessness and meaninglessness as statistically significant predictors of aggression is consistent with Throlinsson and Bernburg's (2002) work that

suggests youth feel increased anomie in comparison to adults, and that these feelings contribute to increased levels of deviance and/or delinquency. The results of purposelessness and meaninglessness are also consistent with Susman et al.'s (2010) work stating that transitional stress is connected to feelings of aggression. I caution that these feelings of anomie are defined in general terms. As such, a general definition will leave room for different interpretations and thus future research will need to define feeling of anomie more succinctly.

With these limitations, the current findings may offer a unique contribution to the previous research on anomie and aggression. The results suggest that feelings of purposelessness and meaninglessness are linked to aggression. With several controls in the multiple regression analysis, the results hold: a high association between feelings of purposelessness, feelings of meaninglessness and aggression. All future studies must control these links in their study of aggression.

Other relationships looked at in the regression analysis were: 1) parenting and aggression, 2) friendship and aggression, 3) access to money and aggression, and finally 4) demographics and aggression.

First, parenting in my research represents a social institution that either provides clear rules of behaviour or ambiguous rules of behaviour. In my regression model, results show that providing ambiguous rules increases aggression while supplying clear behavioural rules decreases aggression. These results were expected because the idea that breakdowns in social institutions which provided behavioural rules can cause individuals to react with acts of crime, suicide, homicide and/ or inappropriate conduct can be traced back to the roots of the anomie theory (Art, Hermkens, & Van Wijck, 1995;

DeMan, & Leduc, 1995; Messner & Rosenfeld 1992; Krivosheyev, V. 2004). More specifically, they are consistent with the works of both Bjarnason, (1998 & 2009) and Weichold et al. (2007), who's research stated that supportive parenting can decrease the effect of transitional stress or anomie on aggression. Future research on anomie and aggression should include these variables. These results could have some important policy implications. If parenting rules relieve aggression, we may want to focus on creating programs and policies that recognize the importance of nurturing parents during adolescence.

Second, the relationship between friendship and aggression in my model reveal that friendships can decrease aggression. However, the strength of friendships to predict aggression was weak according to the standardized beta coefficient in the regression analysis model. These results were unexpected because other social science research has suggested that peer relationships can have negative outcomes (Cohen, 1955; Cloward & Ohlin, 1960). However, these results are understandable due to the fact friendships can supply a legitimate means of status and purpose, which has the potential to reduce aggression. It is for these reasons that any future research on this topic should examine what types of friendships these are and whether the friendship offers the youth moral means of achieving status or identity. A limitation of this study is that I could not find variables that define positive and negative peer influences. In the future research, peer influences should be differentiated according whether their friends support or condone their use of aggression.

The third relationship between increased accesses to money and anomie was expected to decrease aggression. However, the regression model revealed that, access to

money for all youth in the NLSCY seemed to increase aggression. Once again the association was weak, and thus these results should be taken with caution. These findings are contradictory to Merton's (1938) anomie theory which focuses on the lack of financial means as a block to achieving goals. Mertonian theory associates blocks in society, to a contribution to deviance at individual level (Menard, 1995; Cao, 2004). In future research I will need to re-examine these results.

Finally, the relationships between demographic variables and aggression suggest that males were more likely than females to be more aggressive and that younger male respondents, were the most likely to exhibit aggressive behaviours. The results of males being more aggressive than females were consistent with other previous research (Susman et. al., 2010). The results of younger youth being more aggressive than older youth is consistent with Rudolph's (2008) findings, that older youth "have less interpersonal stress generation...and not as many physical changes while navigating through the changes in social relationships" (p.677). These results also consistent with Susman et al.'s (2010) study which stated older youth are better equipped to handle transitional stress than younger children, which could be why younger youth tend to have higher levels of aggression.

### **Limitations**

I would caution that this research is based on an analysis of a secondary data set. The original survey was not designed for the current research and many variable of my interest are not included. Thus, results would need to be corroborated and/ or triangulated with other methods in order to ensure their accuracy.

Durkheim's (1951) anomie theories focused on the breakdown of the social institution of religion. The NLSCY did not have any measure of religion and I fail to test

whether religion affects youth aggression. Any future research on anomie should include religious variables.

The measure of anomie was my creation. I derived it from the anomie literature that the anomic condition had symptoms of anxiety, inattention and depression. Certain aspects of anomie may have been omitted and future anomie research should do a more in-depth discussion.

Next, the friendship variables did not examine if the friendships in this study offered youth status, through illegitimate or legitimate means. A factor which will need to be examined in future research. As Cohen (1955), Cloward and Ohlin (1960), and Bernard (1987) suggested that because of the importance of social acceptance, youth may formulate relationships with certain peer groups, who achieve status through illegitimate means. Thus, I need to understand and define the peer social institution more, in future research.

This thesis was exploratory, and I caution the reader not to interpret the results too broadly. Adolescence is a major transition in life and this thesis only offers one perspective that may help us explore the struggles that our youth maybe dealing with as they find their place within our society. Other items which youth may be struggling with are new dating relationships, sexual desires, changes within the school environment, and media influences.

### **Future Research**

This thesis with the use of secondary data was exploratory and had many limitations. However, I am excited about how this study may offer a more holistic approach to the study of anomie and adolescent aggression, anomie and psychological



development. Furthermore, I am encouraged that my research supplied me with future research questions such as “How do social institutions teach youth resiliency to anomie and transitional stress?” “How can we define the anomic condition more clinically?” “How do religious affiliations and/or school programs affect the anomic condition?”

This study revealed connections between anomie and aggression. According to this study, anomie, specifically purposelessness and meaninglessness, is a predictor of aggression. Therefore, in future research it is recommended that this variable be included. It is believed that considering this concept under this framework would result in an even stronger model to predict youth aggression, and deviance, offering sociologist and psychologist a better understanding of adolescent behaviours and motivations.

Furthermore, it is suggested for future research that a better method of examining these theories may be structural equation modeling (SEM). The SEM or path analysis would allow the researcher to examine several layers of structural relationships.

## Chapter 6: Conclusion

My thesis explores the idea that anomie is related to adolescent aggression. Anomie is common in adolescence because it is a transitional period with norm ambiguity, leaving individuals to experience feelings of meaninglessness and purposelessness (Thorlindsson & Bernburg, 2004). Building on Thorlindsson and Bernburg's work (2004), my thesis expands the anomie concept into the area of adolescent aggression.

The concept of anomie has a long history in sociological research, beginning with Durkheim's study on suicide (1951). Merton (1938) borrowed and applied the concept to explain why crime rate is so high in the U.S.A. Both Durkheim and Merton used the concept at the macro level. Since the 1950s, however, the concept of anomia and the anomic condition has been increasingly applied to explain individual behavior, and broken into more nuanced feelings, such as normlessness, meaninglessness and purposelessness (Dean, 1961; Sani, Bowe & Herrera, 2008; Seeman, 1959; Srole, 1956; Thorlindsson & Bernburg, 2004; Willis et al., 2002). Research has found that struggling with feelings of meaninglessness and purposelessness has been related to acts of suicide (Willis et al., 2002), deviance (Art et al., 1995), homicide (Messner & Rosenfeld, 1997), and youth crime (Krivoshcheyev, 2004). As the literature on the concept of anomie advanced, it became clear that the concept can be used broadly and be applied to explain a broader spectrum of behavior, such as adolescent aggression (Bjarnason, 1998; Bjarnason, 2009; Hoffman, 2003).

A few studies have ventured into the psychological development and have found how physical change is associated with transitional stress and emotions, such as

depression and aggression (Koenig & Gladstone, 1998; Mendle et al., 1882; Obradović & Hipwell, 2010; Rudolph & Hammen, 2011; Rudolph, 2008; Susman, Dockray, Granger, Blades, Randazzo, Heaton & Dorn, 2010; Weichold et al., 2007). This line of inquiry has gone beyond the current area of research.

The psychological developmental research, however, encouraged my exploration into adolescent anomie because it suggested to me that the feelings associated with physical change and transitional stress may provide a new way of understanding youth and the relationships between physical change, the anomic condition and aggression.

With these words in mind, my research has advanced our understanding of adolescent anomie in several ways:

- 1) There is a gender difference in reaction to physical change and this reaction is reflected in different directions of anomie in association with physical change: females react with more anomic feelings while males react to changes with less anomic feelings.
- 2) Everything else being equal, feelings of purposelessness and feelings of meaninglessness predict aggression while the feelings of normlessness do not.
- 3) Adolescent aggression is not an adaptation to a decrease in financial means to achieve financial goals.
- 4) Peer relationships may affect aggression. However, there is a need to define the peer social institution more precisely in future research.
- 5) Parenting has an effect on aggression. Clearly, consistent rules about youth's conduct in society, as provided by nurturing parenting may serve as insulation against adolescent aggression.

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### Measurement Appendix A

The following are the original variables and Frequencies from the National Longitudinal Survey of Children and Youth, 1998-1999 [Canada]: Cycle 3, Self Complete (10-15)” (NLSCY) Code Book:

**Table A1:** Demographics and physical development variables

Variable	Question	Freq
CMMCQ02	Gender of Child	
	[F] Female	2776
	[M] Male	2763
	[6] Not applicable	0
	[7] Don-t Know	0
	[8]Refusal	0
	[9] Not stated	0
CMMCQ01B	Age Grouped by Questionnaire Type	
	[1] 10 Years olds will be grouped with 11 years olds	1833
	[2] 12 years olds will be grouped with 13 years olds	1849
	[3] 14 years old will be grouped with 15 years olds	1857
	[6] Not applicable	0
	[7] Don-t Know	0
	[8] Refusal	0
	[9] Not Stated	0
CPUCQ01	Would you say that your body hair (“body hair” means underarm and pubic hair) has begun to grow?	
	[1] Has not yet started growing	667
	[2] Has barely started growing	1008
	[3] Growth of body hair is definitely underway	2127
	[4] Growth of body hair seems completed	1110
	[6] NOT APPLICABLE	0
	[7] DON-T KNOW	0
	[8] REFUSAL	0
	[9] NOT STATED	627
CPUCQ02	Have your breasts begun to grow?	
	[1] Have not yet started growing	167
	[2] Have barely started growing	769
	[3] Breast growth is definitely underway	1338
	[4] Breast growth seems completed	242
	[6] NOT APPLICABLE	2735
	[7] DON-T KNOW	0
	[8] REFUSAL	0
	[9] NOT STATED	288
CPUCQ03	Have you begun to menstruate (your monthly periods)?	
	[1] Yes	
	[2] No	1330

	[6] NOT APPLICABLE	1126
	[7] DON-T KNOW	2735
	[8] REFUSAL	0
	[9] NOT STATED	0
		348
CPUCQ04	Have you noticed a deepening of your voice?	
	[1] Has not yet started changing	581
	[2] Has barely started changing	798
	[3] Voice is definitely changing	892
	[4] Voice change seems completed	266
	[6] NOT APPLICABLE	2744
	[7] DON-T KNOW	0
	[8] REFUSAL	0
	[9] NOT STATED	258
CPUCQ05	Have you begun to grow hair on your face?	
	[1] Have not yet started growing	990
	[2] Have barely started growing	913
	[3] Breast growth is definitely underway	578
	[4] Breast growth seems completed	45
	[6] NOT APPLICABLE	2744
	[7] DON-T KNOW	0
	[8] REFUSAL	0
	[9] NOT STATED	269

## Anomie variables:

**Table A2:** 16 variables which can describe feeling of “Anomie”: purposelessness, meaninglessness, abnormality, and detachment, in their original form.

Variable	Question	Freq
CFBCc01B	I can-t sit still, I am restless. or hyperactive.	
	[1] NEVER OR NOT TRUE	1923
	[2] SOMETIMES OR SOMEWHAT TRUE	2561
	[3] OFTEN OR VERY TRUE	830
	[6] NOT APPLICABLE	0
	[7] DON-T KNOW	0
	[8] REFUSAL	0
	[9] NOT STATED	225
CFBCQ01F	I am unhappy, sad or depressed	
	[1] NEVER OR NOT TRUE	2675
	[2] SOMETIMES OR SOMEWHAT TRUE	2285
	[3] OFTEN OR VERY TRUE	349
	[6] NOT APPLICABLE	0
	[7] DON-T KNOW	0
	[8] REFUSAL	0
	[9] NOT STATED	239
CFBCQ01I	I am easily distracted. I have trouble sticking to any activity.	
		2571

	[1] NEVER OR NOT TRUE	2171
	[2] SOMETIMES OR SOMEWHAT TRUE	566
	[3] OFTEN OR VERY TRUE	0
	[6] NOT APPLICABLE	0
	[7] DON-T KNOW	0
	[8] REFUSAL	231
	[9] NOT STATED	
CFBCQ01K	I am not as happy as other people my age	
	[1] NEVER OR NOT TRUE	3407
	[2] SOMETIMES OR SOMEWHAT TRUE	1490
	[3] OFTEN OR VERY TRUE	393
	[6] NOT APPLICABLE	0
	[7] DON-T KNOW	0
	[8] REFUSAL	0
	[9] NOT STATED	249
CFBCQ01N	I fidget.	
	[1] NEVER OR NOT TRUE	2314
	[2] SOMETIMES OR SOMEWHAT TRUE	2217
	[3] OFTEN OR VERY TRUE	651
	[6] NOT APPLICABLE	0
	[7] DON-T KNOW	0
	[8] REFUSAL	0
	[9] NOT STATED	357
CFBCQ01P	I can-t concentrate, I can-t pay attention	
	[1] NEVER OR NOT TRUE	3142
	[2] SOMETIMES OR SOMEWHAT TRUE	1815
	[3] OFTEN OR VERY TRUE	311
	[6] NOT APPLICABLE	0
	[7] DON-T KNOW	0
	[8] REFUSAL	0
	[9] NOT STATED	271
CFBCQ01Q	I am too fearful or anxious.	
	[1] NEVER OR NOT TRUE	3274
	[2] SOMETIMES OR SOMEWHAT TRUE	1686
	[3] OFTEN OR VERY TRUE	243
	[6] NOT APPLICABLE	0
	[7] DON-T KNOW	0
	[8] REFUSAL	0
	[9] NOT STATED	336
CFBCQ01S	I am impulsive, I act without thinking	
	[1] NEVER OR NOT TRUE	2387
	[2] SOMETIMES OR SOMEWHAT TRUE	2522
	[3] OFTEN OR VERY TRUE	358
	[6] NOT APPLICABLE	0
	[7] DON-T KNOW	0
	[8] REFUSAL	0
	[9] NOT STATED	272
CFBCc01V	I worry a lot.	
	[1] NEVER OR NOT TRUE	2121
	[2] SOMETIMES OR SOMEWHAT TRUE	2507

	[3] OFTEN OR VERY TRUE	654
	[6] NOT APPLICABLE	0
	[7] DON-T KNOW	0
	[8] REFUSAL	0
	[9] NOT STATED	257
CFBCQ01Y	I tend to do things on my own. I am rather solitary.	
	[1] NEVER OR NOT TRUE	1566
	[2] SOMETIMES OR SOMEWHAT TRUE	2829
	[3] OFTEN OR VERY TRUE	885
	[6] NOT APPLICABLE	0
	[7] DON-T KNOW	0
	[8] REFUSAL	0
	[9] NOT STATED	259
CFBCQ1HH	I cannot settle to anything for more than a few moments.	
	[1] NEVER OR NOT TRUE	3477
	[2] SOMETIMES OR SOMEWHAT TRUE	1573
	[3] OFTEN OR VERY TRUE	188
	[6] NOT APPLICABLE	0
	[7] DON-T KNOW	0
	[8] REFUSAL	0
	[9] NOT STATED	301
CFBCQ1II	I feel miserable, unhappy, tearful, or distressed.	
	[1] NEVER OR NOT TRUE	336
	[2] SOMETIMES OR SOMEWHAT TRUE	1702
	[3] OFTEN OR VERY TRUE	234
	[6] NOT APPLICABLE	0
	[7] DON-T KNOW	0
	[8] REFUSAL	0
	[9] NOT STATED	267
CFBCQ1KK	I stare into space.	
	[1] NEVER OR NOT TRUE	2002
	[2] SOMETIMES OR SOMEWHAT TRUE	2677
	[3] OFTEN OR VERY TRUE	592
	[6] NOT APPLICABLE	0
	[7] DON-T KNOW	0
	[8] REFUSAL	0
	[9] NOT STATED	268
CFBCQ1MM	I am nervous, highstrung or tense.	
	[1] NEVER OR NOT TRUE	2623
	[2] SOMETIMES OR SOMEWHAT TRUE	2418
	[3] OFTEN OR VERY TRUE	236
	[6] NOT APPLICABLE	0
	[7] DON-T KNOW	0
	[8] REFUSAL	0
	[9] NOT STATED	262
CFBCQ1QQ	I am inattentive, I have difficulty paying attention to someone	
		3135
	[1] NEVER OR NOT TRUE	1939
	[2] SOMETIMES OR SOMEWHAT TRUE	185
	[3] OFTEN OR VERY TRUE	0

	[6] NOT APPLICABLE	0
	[7] DON-T KNOW	0
	[8] REFUSAL	280
	[9] NOT STATED	
CFBCQ1RR	I have trouble enjoying myself.	
	[1] NEVER OR NOT TRUE	3774
	[2] SOMETIMES OR SOMEWHAT TRUE	1278
	[3] OFTEN OR VERY TRUE	224
	[6] NOT APPLICABLE	0
	[7] DON-T KNOW	0
	[8] REFUSAL	0
	[9] NOT STATED	263

Predictor Parental relationship variables:

**Table A3:** 9 variables which describe youth relationship with parents

Variable	Question	Freq
CPMCcQ1B	My parents (or step parents or foster parents or guardians ) want to know exactly where I am and what I am doing	
	[1] Never	97
	[2] Rarely	186
	[3] Sometimes	705
	[4] Often	1427
	[5] Always	2803
	[96] NOT APPLICABLE	0
	[97] DON-T KNOW	0
	[98] REFUSAL	0
	[99] NOT STATED	321
CPMCcQ1C	My parents (or step parents or foster parents or guardians ) soon forget a rule they have made	
	[1] Never	1443
	[2] Rarely	1615
	[3] Sometimes	1277
	[4] Often	635
	[5] Always	230
	[96] NOT APPLICABLE	0
	[97] DON-T KNOW	0
	[98] REFUSAL	0
	[99] NOT STATED	339
CPMCcQ1F	My parents (or step parents or foster parents or guardians ) tell me what time to be home when I go out.	
	[1] Never	177
	[2] Rarely	235
	[3] Sometimes	484
	[4] Often	1173
	[5] Always	3125
	[96] NOT APPLICABLE	0
	[97] DON-T KNOW	0
	[98] REFUSAL	0

	[99] NOT STATED	345
CPMCcQ1G	My parents (or step parents or foster parents or guardians ) nag me about little things.	
	[1] Never	1066
	[2] Rarely	1274
	[3] Sometimes	1405
	[4] Often	832
	[5] Always	601
	[96] NOT APPLICABLE	0
	[97] DON-T KNOW	0
	[98] REFUSAL	0
	[99] NOT STATED	361
CPMCcQ1J	My parents (or step parents or foster parents or guardians ) only keep rules when it suits them	
	[1] Never	1124
	[2] Rarely	1024
	[3] Sometimes	1264
	[4] Often	880
	[5] Always	779
	[96] NOT APPLICABLE	0
	[97] DON-T KNOW	0
	[98] REFUSAL	0
	[99] NOT STATED	468
CPMCcQ1L	My parents (or step parents or foster parents or guardians ) threaten punishment more often than they use it.	
	[1] Never	1882
	[2] Rarely	1235
	[3] Sometimes	1020
	[4] Often	678
	[5] Always	303
	[96] NOT APPLICABLE	0
	[97] DON-T KNOW	0
	[98] REFUSAL	0
	[99] NOT STATED	421
CPMCcQ1N	My parents (or step parents or foster parents or guardians ) find out about my misbehaviour	
	[1] Never	375
	[2] Rarely	627
	[3] Sometimes	1152
	[4] Often	1356
	[5] Always	1595
	[96] NOT APPLICABLE	0
	[97] DON-T KNOW	0
	[98] REFUSAL	0
	[99] NOT STATED	434
CPMCcQ1O	My parents (or step parents or foster parents or guardians ) enforce a rule or do not enforce a rule depending upon their mood.	
		1299
	[1] Never	1098
	[2] Rarely	1568
	[3] Sometimes	663



	[4] Often	331
	[5] Always	0
	[96] NOT APPLICABLE	0
	[97] DON-T KNOW	0
	[98] REFUSAL	580
	[99] NOT STATED	
CPMCcQ1T	My parents (or step parents or foster parents or guardians ) take an interest in where I am going and who I am with.	
	1] Never	133
	[2] Rarely	209
	[3] Sometimes	715
	[4] Often	1462
	[5] Always	2634
	[96] NOT APPLICABLE	0
	[97] DON-T KNOW	0
	[98] REFUSAL	0
	[99] NOT STATED	386

### Predictor strength of friendships

**Table A4:** 3 variables which describe strength of youth friendship

Variable	Question	Freq
<b>CFFCQ02</b>	I get along easily with others my age.	
	[1] False	49
	[2] Mostly false	70
	[3] Sometimes true/Sometimes false	703
	[4] Mostly true	1631
	[5] True	2921
	[96] NOT APPLICABLE	0
	[97] DON-T KNOW	0
	[98] REFUSAL	0
	[99] NOT STATED	165
<b>CFFCQ03</b>	Others my age want me to be their friend	
	[1] False	129
	[2] Mostly false	241
	[3] Sometimes true/Sometimes false	1263
	[4] Mostly true	1743
	[5] True	1952
	[96] NOT APPLICABLE	0
	[97] DON-T KNOW	0
	[98] REFUSAL	0
	[99] NOT STATED	211
<b>CFFCQ04</b>	Most other my age like me.	
	[1] False	69
	[2] Mostly false	132
	[3] Sometimes true/Sometimes false	827
	[4] Mostly true	1693
	[5] True	2620
	[96] NOT APPLICABLE	0

[97] DON-T KNOW	0
[98] REFUSAL	0
[99] NOT STATED	198

Aggression variables:

**Table A5:** 6 variables which describe aggression behaviours.

Variable	Question	Freq
<b>CFBCQ01G</b>	I get into many fights.	
	[1] NEVER OR NOT TRUE	3935
	[2] SOMETIMES OR SOMEWHAT TRUE	1142
	[3] OFTEN OR VERY TRUE	222
	[6] NOT APPLICABLE	0
	[7] DON-T KNOW	0
	[8] REFUSAL	0
	[9] NOT STATED	240
<b>CFBCQ01L</b>	I destroy things belonging to my family or other young people	
	[1] NEVER OR NOT TRUE	4930
	[2] SOMETIMES OR SOMEWHAT TRUE	296
	[3] OFTEN OR VERY TRUE	68
	[6] NOT APPLICABLE	0
	[7] DON-T KNOW	0
	[8] REFUSAL	0
	[9] NOT STATED	245
<b>CFBCQ01X</b>	When another kid accidentally hurts me I assume that the other kid meant to do it, and I react with anger and fighting.	
	[1] NEVER OR NOT TRUE	3795
	[2] SOMETIMES OR SOMEWHAT TRUE	1292
	[3] OFTEN OR VERY TRUE	224
	[6] NOT APPLICABLE	0
	[7] DON-T KNOW	0
	[8] REFUSAL	0
	[9] NOT STATED	228
<b>CFBCQ1FF</b>	I threaten people	
	[1] NEVER OR NOT TRUE	4608
	[2] SOMETIMES OR SOMEWHAT TRUE	583
	[3] OFTEN OR VERY TRUE	91
	[6] NOT APPLICABLE	0
	[7] DON-T KNOW	0
	[8] REFUSAL	0
	[9] NOT STATED	257
<b>CFBCQ1JJ</b>	I am cruel, bully or am mean to others.	
	[1] NEVER OR NOT TRUE	4642
	[2] SOMETIMES OR SOMEWHAT TRUE	579
	[3] OFTEN OR VERY TRUE	68
	[6] NOT APPLICABLE	0

	[7] DON-T KNOW	0
	[8] REFUSAL	0
	[9] NOT STATED	250
<b>CFBCQ1NN</b>	I kick, bite, hit other people my age.	
	[1] NEVER OR NOT TRUE	4643
	[2] SOMETIMES OR SOMEWHAT TRUE	597
	[3] OFTEN OR VERY TRUE	64
	[6] NOT APPLICABLE	0
	[7] DON-T KNOW	0
	[8] REFUSAL	0
	[9] NOT STATED	235

Predictor access to money variables:

**Table A6:** 4 variables which describe youth attainment of money (Age 13 and under)

Variable	Question	Freq
<b>CWKCCQ1A</b>	Last week, how much money did you receive from YOUR PARENTS	
	[1] NO MONEY	399
	[2] \$1 TO \$10	821
	[3] \$11 TO \$20	292
	[4] \$21 TO \$30	73
	[6] NOT APPLICABLE	3646
	[7] DON-T KNOW	0
	[8] REFUSAL	0
	[9] NOT STATED	308
<b>CWKCCQ1B</b>	Last week, how much money did you receive from WORKING FOR EMPLOYER(S)?	
	[1] NO MONEY	1381
	[2] \$1 TO \$10	85
	[3] \$11 TO \$20	65
	[4] \$21 TO \$30	33
	[6] NOT APPLICABLE	3646
	[7] DON-T KNOW	0
	[8] REFUSAL	0
	[9] NOT STATED	329
<b>CWKCCQ1C</b>	Last week, how much money did you receive from OTHER SOURCES (gifts from relatives, etc.)?	
	[1] NO MONEY	1035
	[2] \$1 TO \$10	270
	[3] \$11 TO \$20	118
	[4] \$21 TO \$30	58
	[6] NOT APPLICABLE	3646
	[7] DON-T KNOW	0
	[8] REFUSAL	0
	[9] NOT STATED	412
<b>CWKCCQ1D</b>	Last week, how much money did you receive from DOING ODD JOBS (babysitting, delivering fliers, etc.)?	

[1] NO MONEY	1144
[2] \$1 TO \$10	198
[3] \$11 TO \$20	151
[4] \$21 TO \$30	83
[6] NOT APPLICABLE	3646
[7] DON-T KNOW	0
[8] REFUSAL	0
[9] NOT STATED	317

**Table A7:** 4 variables which describe youth attainment of money (Over the age of 13)

Variable	Question	Freq
<b>CWKCc11A</b>	Last week, how much money did you receive from YOUR PARENTS	
	[1] NO MONEY	365
	[2] \$1 TO \$20	1033
	[3] \$21 TO \$40	194
	[4] \$41 TO \$60	41
	[5] \$61 TO \$100	31
	[6] MORE THAN \$100	26
	[96] NOT APPLICABLE	3647
	[97] DON-T KNOW	0
	[98] REFUSAL	0
	[99] NOT STATED	202
<b>CWKCc11B</b>	Last week, how much money did you receive from WORKING FOR EMPLOYER(S)?	
	[1] NO MONEY	1234
	[2] \$1 TO \$20	154
	[3] \$21 TO \$40	110
	[4] \$41 TO \$60	42
	[5] \$61 TO \$100	42
	[6] MORE THAN \$100	56
	[96] NOT APPLICABLE	3647
	[97] DON-T KNOW	0
	[98] REFUSAL	0
	[99] NOT STATED	254
<b>CWKCc11D</b>	Last week, how much money did you receive from OTHER SOURCES (gifts from relatives, etc.)?	
	[1] NO MONEY	1212
	[2] \$1 TO \$20	284
	[3] \$21 TO \$40	60
	[4] \$41 TO \$60	30
	[5] \$61 TO \$100	19
	[6] MORE THAN \$100	32
	[96] NOT APPLICABLE	3647
	[97] DON-T KNOW	0
	[98] REFUSAL	0
	[99] NOT STATED	255
<b>CWKCc11C</b>	Last week, how much money did you receive from DOING ODD JOBS (babysitting, delivering fliers, etc.)?	
	[1] NO MONEY	983

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[2] \$1 TO \$20	483
[3] \$21 TO \$40	142
[4] \$41 TO \$60	26
[5] \$61 TO \$100	12
[6] MORE THAN \$100	11
[96] NOT APPLICABLE	3647
[97] DON-T KNOW	0
[98] REFUSAL	0
[99] NOT STATED	235

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## Appendix B Univariate Analysis

The following is the univariate analysis for each variable used in this study.

### Demographic Variables

**Table B1:** Demographic Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
AGE - GROUPED	5539	1	3	2.00	.816
Sex of child Female [1]	5539	0	1	.50	.500
Valid N (listwise)	5539				

### Physical Change Variables

**Table B2:** Physical Change Variables Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Has your body hair begun to grow?	4912	1	4	2.75	.955
Have your breasts begun to grow?	2516	1	4	2.66	.742
Have you begun to menstruate?	2456	1	2	1.46	.498
Has your voice gotten deeper?	2537	1	4	2.33	.943
Do you have hair on your face?	2526	1	4	1.87	.822
Valid N (listwise)	0				

**Anomie Variables****Table B3:** Anomie Variables Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Can-t sit still, am restless.	5314	1	3	1.79	.690
I am unhappy, sad or depressed.	5300	1	3	1.56	.612
I am easily distracted.	5308	1	3	1.62	.670
I am not as happy as other people my age	5290	1	3	1.43	.628
I fidget.	5182	1	3	1.68	.685
I can-t concentrate, can-t pay attention	5268	1	3	1.46	.606
I am too fearful or anxious.	5203	1	3	1.42	.580
I am impulsive, act without thinking.	5267	1	3	1.61	.611
I worry a lot.	5282	1	3	1.72	.670
I am rather solitary.	5280	1	3	1.87	.669
I cannot settle to anything for long.	5238	1	3	1.37	.553
I feel miserable, unhappy, tearful.	5272	1	3	1.41	.575
I stare into space.	5271	1	3	1.73	.649
I am nervous, highstrung or tense.	5277	1	3	1.55	.581
I am inattentive.	5259	1	3	1.44	.563
I have trouble enjoying myself.	5276	1	3	1.33	.552
Valid N (listwise)	4616				

**Table B4:** Scaled Anomie Variables Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Eight Feelings of purposelessness	4836	1	3	1.41	.367
Five Feelings of meaninglessness	5018	1	3	1.31	.357
Three Feelings of normlessness	5031	1	3	1.22	.374
Valid N (listwise)	4616				

## Parenting Variables

**Table B5:** Parenting Variables Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
My parents want to know what I-m doing.	5218	1	5	4.28	.952
My parents tell me what time to be home.	5194	1	5	4.32	1.041
Parents find out about my misbehaviour.	5105	1	5	3.62	1.244
My parents interested in whom I-m with.	5153	1	5	4.21	.999
Parents enforce rule depending on mood.	4959	1	5	2.52	1.201
Parents threaten to punish more than do.	5118	1	5	2.27	1.247
My parents keep rules when it suits them	5071	1	5	2.84	1.360
My parents nag me about little things.	5178	1	5	2.74	1.275
My parents forget a rule they have made.	5200	1	5	2.35	1.136
Valid N (listwise)	4584				

**Table B6:** Scaled Parenting Variables Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Four Items for parents who supply rules	4981	1	5	3.43	.59
Five Item for parent who don't have clear rules	4712	1	5	2.15	.68
Valid N (listwise)	4584				



## Aggression Variables

**Table B7:** Aggression Variables Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
I get into many fights.	5299	1	3	1.30	.542
I destroy other-s things.	5294	1	3	1.08	.317
I react with anger and fighting.	5311	1	3	1.33	.552
I threaten people.	5282	1	3	1.14	.398
I am cruel, bully or am mean to others.	5289	1	3	1.14	.378
I kick, bite, hit other children.	5304	1	3	1.14	.377
Valid N (listwise)	5042				

**Table B8:** Scaled Aggression Variable Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Six Items of External Aggression	5042	5.17	15.50	6.1646	1.51922
Valid N (listwise)	5042				

## Access to Money Variables

**Table B9:** Access to Money Variables For Youth Ages 13 and Under Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Money/week from your parents? over 11-under 14	1585	1	4	2.02	.787
Money/week from working at a job? over 11-under 14	1564	1	4	1.20	.609
Money/week from other? over 11-under14	1481	1	4	1.46	.802
Money/week from odd jobs? over 11-under 14	1576	1	4	1.48	.870
Valid N (listwise)	1320				

**Table B10:** Access to Money Variables For Youth Older than 13 Years Old Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Money/week from your parents? ages over 13	1690	1	6	2.06	.914
Money/week from working at a job? ages over 13	1638	1	6	1.58	1.235
Money/week from odd jobs? ages over 13	1657	1	6	1.57	.855
Money/week from other? ages over 13	1637	1	6	1.45	.980
Valid N (listwise)	1602				

**Table B11:** Scaled Access to Money Variables Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
4 items of access to money for ages 13 and under	1320	1	4	1.24	.35
4 items of access to money for ages over 13 years	1602	1	6	1.36	.50
Valid N (listwise)	0				

### Friendship Variable

**Table B12:** Friendship Variable Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
I get along easily with others my age.	5374	1	5	4.36	.824
Others my age want me to be their friend	5328	1	5	3.97	1.001
Most other my age like me.	5341	1	5	4.25	.894
Valid N (listwise)	5294				

**Table B13:** Scaled Friendship Variable Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
3 items of respondents feeling about friendships	5294	2.33	11.67	9.7449	1.77017
Valid N (listwise)	5294				