AN EXPLORATION OF DIFFERENCES IN RESPONSE TO MUSIC RELATED TO LEVELS OF PSYCHOLOGICAL HEALTH IN ADOLESCENTS

by

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University of Toronto
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Abstract

Popular music plays a significant role in the lives of most adolescents. The central question explored is whether three groups of adolescents (psychiatrically ill, depressed, and non-clinical adolescents) differed on self-reported data on: (a) the role of popular music in their lives, and (b) in their emotional reactions to music. The next question is whether the developmental issues of gender and personality consolidation, age, and school commitment simultaneously influence how the three groups of adolescents use music in their lives and in their emotional reactions to music. The last question is whether the three groups have significantly different music preferences in the five genres of popular (rap, pop/dance, heavy metal/hard rock, classic rock, and alternative). There were 126 subjects employed in this research.

I created the Walker Music Questionnaire (WMQ) to explore the role and importance that music plays in the lives of the adolescents. A factor analysis
found five factors (Introspection, Identity-Music, Discerning Music Identity, Fantasy-Rebellion, and Identity-Self). The Adolescent Semantic Differential Scales (ASDS) measured the adolescents’ emotional responses to 10 pieces of popular music representing the five genres described above. These scales are well known measures of emotional response and I added eight adjectives that represented adolescent issues. This measure was also factor analyzed and the three factors of Evaluation, Romance, and Potency emerged. Preference for the five genres was determined from the Adolescent Semantic Differential Scales. MANOVAS were done with both sets of factors derived from the WMQ and ASDS simultaneously using the developmental variables of age group, gender, personality, and school commitment.

Psychological health was found to be a significant variable. Specifically, the role of music for the depressed group was significantly different from the other two groups of adolescents. The developmental issues that remained significant were personality and school commitment. Furthermore, the psychiatrically ill group reacted more emotionally to the music than the other two groups and this remained significant even when the developmental variable of personality was considered. The three groups were not differentiated by their preference ratings on the ASDS.
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T.S. Eliot (1943) Music heard so deeply that it is not heard at all, but you are the music while the music lasts.

My clinical work with adolescents has shown me that many individuals also fervently believe this as well and many of my therapeutic experiences with adolescent clients have been enriched by our discussions about popular music.

I am very, very fortunate to have worked with three extraordinary individuals who advised me despite the length of time to completion and my being post program. I am grateful in more ways than I can express for your support. To Dr. Lee Bartel, my thesis adviser, thanks for your continuous input, support and expertise from the music perspective and arranging the very worthwhile practice session. To Dr. Faye Mishna for stepping up when I needed a committee member and all your assistance despite many commitments and responding in ways that were needed. To Dr. Jerry Brunner, for helping me with the statistics, even making it exciting and providing unique ways to think about how this research was done. Thanks also to Dr. Michel Ferrari and his unique suggestion about the audio part of the thesis.

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Many people have brought music to my life.
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Background and Context

Popular music is a major presence in the lives of most adolescents. In a large national survey of media use (Rideout, Roberts, Ulla, Foehr, 2005), it was reported that 15-18-year-old American adolescents spend a total of 6 ½ hours per day using various media including computers, television, video games, and listening to music. Music listening specifically was found to be approximately 2 ½ hours per day. Many researchers have explored music’s importance to adolescents and have explored how adolescents actively use music to satisfy social, emotional and developmental needs (Arnett, 1995; Christenson & Roberts, 1998; Larson, 1995; Lull, 1987; North & Hargreaves, 2008; North, Hargreaves & O’Neill, 2000; Schwartz & Fouts, 2003).

For the past 30 years, controversy has raged about the impact of popular music on youth. News stories stating that the music of Marilyn Manson influenced the shooters at Columbine to the reporting on court cases requesting damages from the rock bands of Judas Priest and Pearl Jam for the alleged suicidal suggestions in their music to the obscenity trial of the rap group 2 Live Crew have fuelled the speculation about popular music’s role in the lives of adolescents (Christenson & Roberts, 1998; Litman & Farberow, 1994). In fact, in the early 1990s the Parents Music Resource Centre (PMRC) was formed to educate the public about
the negative influences of popular music on American youth. Groups such as the American Academy of Child and Adolescent Psychiatry and the American Academy of Pediatrics also maintained that rock music could have a negative effect on youth especially those youth with existing mental health concerns (Villani, 2001). North and Hargreaves (2006) labelled the genres of heavy metal/hard rock, hip hop/rap, and alternative/punk music as problem music. Some researchers have focused on the sub-group within the larger sample of non-clinical adolescents who prefer problem music to explore whether the difference between them and their peers who prefer more mainstream type of music. Thus, some research has focused on problem music and other research has focused on adolescents who are deemed more vulnerable either through mental health concerns, substance abuse issues, or delinquency and their music preferences.

Many assumptions exist regarding the role of music in the lives of adolescents (Fine, Mortimer and Roberts, 1993). Assumptions are made that all adolescents are rebellious so listening to controversial/problem music fits into that stereotype. Other assumptions made are that adolescents do not pay attention to the lyrics or that banning music makes it more appealing. Some people assume that certain genres of music can turn children into violent aggressors. Others from the music industry deny any affect whatsoever regarding music’s impact on adolescents. It is clear that research is needed to clarify what are assumptions and what are facts and to explore as Fine, Mortimer and Roberts (1993) asked: “not whether
the mass media affects adolescents but which messages (or parts of messages), under which conditions, affect perceptions, behaviours and beliefs among which adolescents” (p. 635).

During an internship at a Toronto-based hospital, it became apparent to me that the adolescents on the psychiatric unit discussed popular music for an inordinate amount of time. Staff in the unit observed that music had a powerful influence on the attitudes and values of the adolescent patients. Musical taste was frequently reflected in what the young people chose to talk about and in their manner of dress and deportment. For example, adolescents who preferred heavy metal/hard rock music typically wore black jeans and a t-shirt emblazoned with the logo of their favourite band; sported long hair irrespective of gender; and generally conveyed an aggressive demeanour. For many of the staff, it became a matter of speculation as to whether music’s role was different for those referred to the unit than other adolescents. The question of popular music’s role for adolescents with mental health issues also arose in my therapeutic work with adolescents, as many of these adolescents often speak about popular music and its unique role in their lives. These experiences with youth struggling with psychological issues lead to the exploration of the role that popular music plays in the lives of all adolescents, especially for those adolescents with clinical issues, and whether this role is as controversial as the groups described above alleged.
Why do Adolescents Listen to Popular Music?

Much has been written about the theoretical reasons for why adolescents listen to music which include identity formation and exploration (Arnett, 1995; Chapin, 2000; Christenson & Roberts, 1998; Farber, 2007; Frith, 1983; Kroger, 2004; Larson, 1995; Larson & Kubey, 1983; Lull, 1987; Sternheimer, 2003); entertainment (Arnett, 1995); exploring gender identity (Arnett, 2002; Brown & Hendee, 1989; Chapin, 2000; Frith, 1983; Steele & Brown, 1995); source of rebellion (Frith, 1983; Lull, 1987; Roe, 1999; Sternheimer, 2003); understanding relationships (Arnett, 2002; Bleich, Zillmann & Weaver, 1991; Gibson, Aust, Zillmann, 2000; North & Hargreaves, 2008; Scheff, 2001); emotional expression (North & Hargreaves, 2007; Gracyk, 2007); exploring independence from family (Larson, 1995, Roe, 1999) and coping with change (Arnett, 1995; Fine, Mortimer & Roberts, 1993; Larson, 1995). Many of these reasons speculated are related to issues of adolescent development.

Research has found that adolescents report listening to music for the following reasons: satisfy emotional needs (Hargreaves, Miell & MacDonald, 2002; North, Hargreaves & O’Neill, 2000; Rosenbaum & Prinsky, 1987), mood regulation (Gantz, Gartenberg, Pearson & Schiller, 1978; North & Hargreaves, 1999; Schwartz & Fouts, 2003; Tekman & Hortacsu, 2002), relaxation (Gantz et al., 1978; Rosenbaum & Prinsky, 1987); self-identity (Christenson & Roberts, 1998);
identity with peer group (North et al., 2000) and dancing (Rosembaum & Prinsky, 1987).

In conclusion, surveys with adolescents have found that many of the reasons speculated as to why adolescents listen to music are in fact the case. The research evidence suggested two principal ways adolescents use music – the first is to explore identity issues relevant to adolescents both in terms of self-identity and peer relationships. Specifically, music is used to negotiate interpersonal relationships from how one’s music preferences can define which social groups an adolescent belongs to. Secondly, many adolescents have reported that they use music for emotional regulation purposes including helping them get into a better mood, cheer them up when they feel sad and as a means of not feeling alone when they are feeling lonely.

**Developmental Issues Unique to Adolescence in Music Research**

According to North and Hargreaves (2008), the psychology of music has two important sub genres – cognitive psychology and the developmental psychology of music. This latter sub genre was highlighted in Hargreave’s book entitled The Developmental Psychology of Music (1986). This book emphasized the development issues inherent in music preference and experience. Many theorists have also suggested a link between the role of popular music in adolescence and developmental issues (Chapin, 2000; Fine, Mortimer & Roberts, 1993; Larson, 1995). Specifically, Fine, Mortimer and Roberts stated that
different mass media serve various psychological functions at different stages of adolescence. The younger adolescent tends to watch television with their parents and siblings. The older adolescent turns to music as a solitary activity away from the family and as a means of seeking out alternative sources of information other than their parents. They further postulated that an adolescent’s current developmental task determines what he or she took from the music they were listening to. Larson (1995) reported that the adolescents he studied used music to explore various aspects of themselves including the self that they would like to be. He used the example of the shy male adolescent who became in fantasy the confident, aggressive singer of his favourite heavy metal band while listening to the music. Researchers also concluded that adolescence is characterized by the adolescent seeking information regarding developmental tasks, and popular music is one of the sources of information that is different from their family (Arnett, 1995; Hargreaves et al., 2002; Schwartz & Fouts, 2003).

Adolescence is generally understood as being marked by developmental tasks unique to this period. Tasks of adolescent development include personality and gender consolidation, independence from family, moral reasoning, identity seeking and developing a sense of self, establishing peer and opposite-sex relationships, moving towards future job and civic responsibilities (Arnett, 2004; Blos, 1979; Chapin, 2000; Christenson & Roberts, 1998; Harter, 1990; Kroger, 2004). For this research, the developmental tasks explored were gender role
identity (male/female), age (early – 12-14 years, middle – 15-17 years or late – 18+ years), personality and level of school commitment.

Many researchers found that gender role identity is explored through the use of music in that adolescents use music and musicians to understand gender role behaviour (Arnett, 2004; Roe, 1999; Villani, 2001, Wasler, 1993). Frith and McRobbie (1978) suggested over 30 years ago, that there was a significant difference in the way that males and females used music in their lives. They suggested that music was a means of reinforcing gender roles with females being receptive listeners and males active performers. However, it has only been in the last 20 years that research has examined the different music preferences and experiences of music for males and females. Specifically females prefer pop or mainstream music whereas males are more likely to prefer hard rock or non-mainstream music (Christenson & Roberts, 1998; Larson, 1995; Martin et al, 1993; O’Neill, 1997; Rawlings & Ciancarelli, 1997; Russell, 1997; Tanner, 1981). As well, females tend to use music to fulfill emotional needs (Christenson & Roberts, 1998; North et al, 1998; Roe, 1998) whereas males tend to use music to energize themselves (Arnett, 1996; Christenson & Roberts, 1998; Wells, 1990).

Another important area of development is personality consolidation for adolescents. A number of studies have explored the relationship between personality and music preference, but none of the studies have used the Washington University Sentence Completion Test (WUSCT), the personality
measure employed in this research. However, the main personality measures utilized in the literature have similar theoretical underpinnings to the WUSCT. Generally the two main measures used are the Eysenck Personality Inventory and the Big Five NEO Personality Inventory. Both of these personality measures share the dimensions of extroversion/introversion and neuroticism but also had other traits related to their measure including agreeableness, openness to experience, conscientiousness and psychoticism. The WUSCT measures the psychosocial maturity of the individual and includes the facets of impulse control, interpersonal style, and conscious preoccupations (Westenberg, Blasi & Cohn, 1998).

There was no research that specifically studied music preference by the age groups of the early, middle and late stages of adolescence. A common thread in the research is that by late childhood or early adolescence, a significant shift in music tastes occurs. Adolescents tend to prefer fewer genres of music and pop/rock music predominately throughout their high school years. It also appears that younger adolescents significantly like heavy metal music and rap more than older high school students. As adolescents get older and reach university levels, their openness to new genres of music appears to broaden (Christenson & Roberts, 1998; Roe, 1999).
This Study

This research began with the question of whether there was a difference between how three different groups of adolescents used music in their lives. The three groups consisted of: 1) a group of inpatient adolescents obtained from an adolescent psychiatric unit, the next two groups were obtained from the community – one group was found to be depressed, and the remaining adolescents were the third group and called the non-clinical group. This question was broadened to include how developmental issues also affect the musical experience and preference of adolescents. The role that music played in the lives of adolescents was explored using the questionnaire I wrote which explored various aspects of why adolescents listen to music. These 47 questions were then factor analyzed and 5 factors emerged. Emotional reactions were studied using a variation of the semantic differential scales created by Osgood, Succi & Tannenbaum (1957) and were also factor analyzed, and this analysis found three factors. It was crucial to explore whether developmental issues also coloured the three groups of adolescents on the questions presented below.

Central Question

Do psychiatrically ill, depressed and non-clinical adolescents differ on self-reported data on (a) the role of popular music in their lives, and (b) in their emotional reactions to music?
Further Research Questions

1) Do the developmental issues of gender and personality consolidation, age and school commitment simultaneously influence how the three groups of adolescent use music in their lives and in their emotional reactions to music?

2) Do the three groups of adolescents have significantly different music preferences of the five genres of popular music (rap, pop/dance, heavy metal/hard rock, classic rock, and alternative) used in this research?

Significant Gaps in the Research

This dissertation is an attempt to address some of the gaps identified in the psychology of music research. Most of the above-mentioned research has been with undergraduate psychology students. No other research was found that employed three groups of adolescents – two clinical groups (psychiatrologically ill in-patients from an adolescent psychiatric unit, and a depressed group of adolescents). Only two studies were found that utilized adolescent psychiatric patients (King, 1988; Took & Weiss, 1994) and three studies that measured for depression in their adolescent subjects (Martin et al., 1993; Miranda & Claes (2007, 2008). According to North and Hargreaves (2008), one of the problems in current music research is the focus on classical music, yet classical music only occupies a small minority of the general public. According to Christenson and Roberts (1998), a major issue lacking in this research area is the following:

Partly in the interest of clarity, the various influences on music taste – parents, mass media, age, race, gender, social class – are presented in
serial form and single file, as if each acted independently without regard to
the others. As a result, most of the relationships discussed are bivariate
relationships – between age and music preference, social class and music
preference and so on. Yet as the research shows, music preference
relates to these factors in more complicated ways (relationship between
gender and music preference depends on race and that age interacts with
social class) but unfortunately relatively few studies have examined the
various multivariate relationships that no doubt operate. Indeed further
exploration of such interaction is a necessary next step in the research (p.
81).

I also was attempting to find a different way to measure preference and
emotional reactions to music than has been typically done in the research with
adolescent subjects that was less obvious to the adolescents the demand
characteristics of the research. This was a means of attempting to avoid the
controversial nature of music’s influence on adolescent subjects that the
adolescents were also aware of due to the extensive media coverage of violent
events and their alleged linkage to the music preference of the perpetrator.

**Personal Motivation for this Investigation**

I work clinically with adolescents and struggle to find ways to engage many
reluctant adolescents for treatment. I have found that for many adolescents
entering their world through a discussion about popular music is a powerful
means of building therapeutic rapport and exploring a metaphoric link to their
internal world. It is well known that many adolescents are reluctant consumers of therapy and parents no longer have the same means of persuading their adolescent to partake in therapy as they had when they were younger. I also wonder whether listening to many hours of metal/rap music has an influence on some adolescents. I do not believe all adolescents are influenced but wonder about the vulnerable adolescents who are isolated, struggling with psychological issues and appear to obtain much of their information about the world from popular music.

**Audience and Knowledge Advancement**

Clinicians working with adolescents may pay more attention to what type of music adolescents listen to, why they report liking it and its role in their lives. This research is part of the growing field examining the unique role of popular music in adolescence. We are in a society where music is everywhere and many adolescents listen to iPods much of their day and, for many, even in class. The amount of time spent listening to music with the new technologies has never been greater, and what this influence has on behaviour, attitudes, and beliefs is a needed area of further exploration. Also, it would be beneficial to clinicians to speculate about the role that music plays in the lives of the adolescents they are working with. Is it for information seeking, separating from parents, identity issues, rebellion, entertainment, or mood control/regulation? This role may provide vital information about an adolescent’s level of development and coping
skills. This area of research might be of interest to parents of adolescents as well as clinicians working with adolescents.

**Structural Outline of Thesis Document**

The thesis document begins with Chapter 1, which introduces the dissertation and outlines the importance of popular music in adolescence both theoretically and from a research perspective. It also outlines the controversy in this area and the reasoning behind employing three different groups of adolescents and how they were derived for this research. I also pose the central question and the subsequent questions that followed the first question.

Chapter 2 presents the review of the literature regarding the role of music in the lives of adolescents and its unique role in adolescence. This chapter is categorized by the developmental issues described above and includes sections on gender, age, personality, and school commitment. The format of each section is uniform and includes the theoretical perspectives, research studies, and music preference related to each developmental issue. The first development issue is gender and music experience from a theoretical perspective. Much has been suggested about the effect of gender on music experience, but it has only been recently that research has explored gender effects. Research is also presented examining gender effects on music experience and preference. An in-depth examination of psychological health and music experience follows this section. Many researchers have examined the relationship between music preference
and psychopathology, including drug use, at-risk or vulnerable adolescents, psychiatric patients, and delinquency. Others have studied the small sub-group of adolescents found in large non-clinical studies who preferred problem music and whether they were different from their peers who preferred more mainstream music. The exploration of personality variables and music experience has a long history in music research. It has been speculated that one’s personality is reflected by what one likes about music and what types of music one listens to. There have been recent studies looking at personality and adolescence specifically the work of Miranda & Claes (2007) and Rentfrow & Gosling (2003). The next section examines the role that school commitment has played in an adolescent’s music experience. An adolescent’s experience at school was linked to music preference and the role that music played in their life (Roe, 1983). Lastly, research linking adolescent age and music experience will be outlined.

Chapter 3 focuses exclusively on music and adolescence, which was treated as a separate chapter in order to highlight the unique role music has in adolescence. It includes a history of the genres employed and an overview of the information-seeking uses of popular music. It is also important to present the extensive research using the semantic differential technique, although there are few studies using adolescent subjects and popular music. The next chapter is the Methodology chapter, which focuses on how subjects were selected and the two measures used, namely, the WMQ and the ASDS. Furthermore this chapter also describes the results of the two factor analyses from the WMQ and the ASDS.
and labels the factors derived. Chapter 5 presents the results of this study employing the MANOVA statistical method by the three adolescent groups examined simultaneously on the development issues of gender, age, personality, and school commitment by both the WMQ and ASDS factors. This chapter also summarizes the music preference results, the limitations of the study and areas of future research. The last chapter explores whether the three groups of adolescents had a different experience of music and whether it was related to the development issues of adolescence. A list of references follows Chapter 6 as well as the Appendices. The Appendices include the Consent Forms, Walker Music Questionnaire, Adolescent Semantic Differential Scale adjectives, the lyrics of the 10 songs, School Commitment Scale, and the Washington University Sentence Completion Test.
Chapter 2

MUSIC AND ADOLESCENCE

This chapter examines the unique role that popular music plays in adolescence. It also gives the unique history of the genres used in this research and a brief outline of each song listened to by the adolescents. Also, presented will be the research on the semantic differential scales and music. This chapter is structured to highlight the research on popular music as opposed to the developmental issues (age, gender, psychological health, personality, and school commitment level) of the next chapter.

Role of Music in Adolescence

Popular music is a major presence in the lives of most adolescents. Christenson and Roberts (1998) reported that American adolescents spend between four to five hours per day involved in the music media, either listening to music or watching music videos. Christenson and Roberts (1998) further noted that young people under 24 years account for 40-50% of all pop music sales in the United States. This market is estimated to be over $114 billion on 733 million CDs, records, and cassettes (North and Hargreaves, 2008, p. 154). Sternheiner (2003) described in detail the media’s obsession with the influence of music on adolescent behaviour. She suggested that the emphasis on the music listened to by adolescents is a way of detracting from the bigger issues of poverty, alienation, and lack of opportunity for many of today’s youth. She illustrated that
following the Columbine massacre, the media focused on the music listened to by the shooters at Columbine rather than on their obsession with Adolf Hitler.

**Uses of Popular Music**

Many researchers believe that adolescence is characterized by the adolescent seeking information regarding developmental tasks, and popular music is one of the sources of information (Arnett, 1995; Chapin, 2000; Fine et al., 1993; Larson, 1995; North et al., 2002). Listening to music tends to be a solitary activity, although occasionally occurs with friends but seldom with family members (Larson, 1995).

Psychological and sociological research has investigated both the theoretical and empirical roles that music plays in the lives of adolescents. Three early surveys involved asking adolescents their reasons for listening to music and/or the radio (Gantz, Gartenberg, Pearson & Shiller, 1978; Roe, 1983; Rosenbaum & Prinsky, 1987). All of these surveys started with a list from a minimum of 7 (Rosenbaum & Prinsky, 1987) to a maximum of 12 reasons (Roe, 1983). All were factor analyzed, which derived factors for the reasons the adolescents reported listening to music. The three surveys had two reasons in common - mood management and relieving boredom as something to do. The research by Rosenbaum and Prinsky (1987) was the only study that found that female adolescents stated that they listened to music in order to dance to it.
Almost 15 years ago, Arnett (1995) suggested 5 primary reasons: 1) entertainment 2) identity formation 3) high sensation 4) coping and 5) youth cultural identification. Many of the reasons that Arnett theorized have since been found in the research in this area. Other theorists have also explored reasons why listening to music is so important at this developmental age. The most common reason is related to issues of identity exploration including identifying with peers, exploring a sense of self, and gender identity. For many adolescents, affiliation with a genre of music is seen to act as a label or “badge” of identification (e.g., Arnett, 1995; Chapin, 2000; Christenson & Roberts, 1998; Farber, 2007; Frith, 1983, Kroger, 2004; Larson, Kubey & Colletti, 1989; Levitin, 2006; Lull, 1987; North & Hargreaves, 1999; Miranda & Claes, 2004; Roe, 1995; Schwartz & Fouts, 2003; Sternheimer, 2003; Tarrant & Hargreaves, 2002; Tekman & Hortacsu, 2002). According to other viewpoints, music plays an important part in adolescent development by allowing adolescents to explore different aspects of themselves through music (Larson, 1995; Farber, 2007). Roe (1999) suggested that music is a safe place outside the family for an adolescent to create a private self away from other family members. Another important aspect of identity is gender identity and how adolescents glean ideas about what it is like to be a man or woman from images in popular music. Many theorists have also suggested that gender identity may be explored through music listening (Arnett, 2002; Brown & Hendee, 1989; Chapin, 2000; Christenson & Roberts, 1998; Frith, 1983; Steele & Brown, 1995).
It has been suggested that adolescents as well use music to resist authority, rebel, and assert themselves as different from their parents (Frith, 1983; Lull, 1987; Roe, 1999; Sternheimer, 2003). As well, music can be a means of understanding interpersonal relationships (Arnett, 2002; Bleich, Zillmann & Weaver, 1991; Chapin, 2000; Gibson, Aust, Zillmann, 2000; Knobloch & Mundorf, 2003; North & Hargreaves, 2008; Scheff, 2001; Steele & Brown, 1995). Gracky (2007) suggested that music's importance in adolescence is explained by music's connection with the expression of emotion, which is particularly critical in this developmental period. In addition, some adolescents' music listening is a means of coping with change (Arnett, 1995; Kurdek, 1987; Larson, 1995) and for information regarding moral issues (Rouner, 1990).

North, Hargreaves and O'Neill (2000) found that adolescents reported that music was important to them for two reasons. The first was to fulfill emotional needs and loaded the highest on “listening to relieve tension and stress” and “listening to express emotions” (p. 263). The second factor suggested that music listening is related to “impression management needs” and involved items such as “listening in order to create a particular self-image” and “listening to be trendy/cool” (p. 263). Tarrant and colleagues (2000) found in their study comparing British and American high school students on their reasons for listening to popular music that they gave similar reasons for listening to music. The reasons were for self-actualization and fulfillment of emotional and social needs.
In conclusion, Hargreaves, Miell and MacDonald (2002) formulated three reasons overall for youth listening to music from their review of the relevant music research. Specifically, they found many youth used music as a means of identifying with a peer group, for mood management, and self-identity. For some youth, their self-identity indicated their identification of themselves as a musician or performer. However, for most adolescents, they used music as a means for developing aspects of their own identity including how they dressed and saw themselves. Music was also a way of defining one’s social group as a badge of identity (North & Hargreaves, 1999) and for regulating moods.

**Music Genres**

Genre is an important means through which to structure the different categories of music.

Holt (2007) suggested nine genres of American popular music:

- Blues (country blues, urban blues, Chicago West Side blues)
- Jazz (traditional, swing, bebop, cool jazz)
- Country music (old-time/traditional, bluegrass, honky-tonk, Nashville sound)
- Rock (rock and roll, classic rock, glam rock, punk)
- Soul/R & B (R & B, Memphis soul, Motown, soul-funk, contemporary Rhythm & Blues)
- Salsa (salsa dura, salsa romantica, soul salsa, dance club salsa)
- Heavy metal (black metal, death metal, doom metal, speed metal, thrash metal)
- Dance (disco, techno, house, trance, ambient)
- Hip hop (old school, East Coast, West Coast, gangsta rap)

(pp. 16-17)

**Popular Music Genres Used in This Research**

The 10 pieces of music chosen for this study were used to reflect the five top music genres of the early 1990s. The genres were heavy metal, rap, classic rock, pop, and alternative music. Each genre will be described in more detail and its historical relevance during this time period briefly described. An important consideration for the music chosen was that it reflected both the top five genres of the time and themes related to aspects of adolescent development. Themes related to morals, aggression/violence, sex, romance, and fantasy (the lyrics of each song are in Appendix “D”). As mentioned in the Methodology Chapter, three key informants in the music industry were consulted in the selection of these representative 10 pieces of popular music, for advice in identifying themes and in assigning categories.

Recently, North and Hargreaves (2006), key music researchers in Britain, have labelled the genres of hard rock/heavy metal, alternative, and hip hop/rap as *problem music*. Other researchers have described the same genres as *deviant*
music (Christenson & Roberts, 1998) or antisocial music (Miranda & Claes, 2007).

Rap Music

Rap music originated in the mid-1970s in New York City and began with DJs who held street parties with mobile sounds systems in the Bronx and Harlem (Arnett, 2004; Keeley, 2001). Rap is delineated as a type of hip hop music (Keeley, 2001). Rose (1994) described rap as a “form of rhymed storytelling accompanied by highly rhythmic, electronically based music” (p. 2). Krims (2000) suggested that there are three district modes of rapping (or rhythmic delivery): 1) sung 2) speech effusive and 3) percussive effusive. Sung style is exemplified by the Beastie Boys and its characteristics are “rhythmic repetition, on-beat accents, regular on beat pauses and strict couplet grouping (p. 50). N.W.A. (Niggaz wit Attitudes) used mainly the speech effusive style and its characteristics are “staggering the syntax and/or the rhymes, relentless subdivision of the beat, repeated off beat accents, and polyrhythms with four measure groups of 4/4 time” (p. 50). Finally, percussion effusive was described as the rapper using his or her mouth as a percussion instrument and was characterized by a “combination of off-beat attacks with a sharp attack and crisp delivery that accentuates the counter metric delivery” (p. 52). An artist that exemplifies this style is B-Real of the group Cypress Hill. Rap lyrically reflects roots in the African, African American, and Caribbean cultural traditions and musically was derived from jazz, rhythm and blues and the funk sounds of James Brown (Friedlander, 2006).
Rap music has a history of controversy particularly its subgenre “gangsta rap” which is described as probably the most controversial form of popular music to ever find its way into mainstream culture (Hansen, 1995). It is seen as glorifying violence, drug use, and gang life and has been charged with anti-Semitism, homophobia, racism and anti-white sentiments in its lyrics. Rap music is seen as often critical of women and as overplaying the importance of male friendships (Arnett, 2004). Despite its origins as expressing the concerns of inner-city African-Americans, rap music has surprisingly come to have mass appeal for many middle-class white Americans (Keeley, 2001).

The two rap songs used in this research represent two types of rap music. The first artist MC Hammer’s song Pray is described as pop or lite rap. This type of rap was also represented by the work Puff Daddy and Will Smith and had the crossover success on the pop charts. Pop or lite rap drew millions of new listeners to rap music in the early 1990s, for which it was criticized. In particular, MC Hammer was accused of selling out and simplifying rap music from its roots (Arnett, 2004; Friedlander, 2006). MC Hammer was a batboy for the Oakland A’s in the 1970s, where he was nicknamed “Little Hammer” for his resemblance to baseball great “Hammerin” Hank Aaron. He dropped the “MC” from his name in mid-1991, re-added it again in 1995.

The song used in this research by MC Hammer was “Pray.” The song was on the charts for 10 weeks beginning in June 1990, and the album sold over 15
million copies due to Hammer’s dance-oriented high energy shows (Friedlander, 2006). In general terms in the song is MC Hammer’s describes his praying on his knees every night no matter how successful he is as an acknowledgement of his gratitude to God.

The second song was “F*** tha Police” by N.W.A, which was highly controversial at the time. N.W.A was described as one of the founding bands of “gangsta rap” that emerged in the early 1990s (Borthwick & Moy, 2004; Ogbar, 2007). The artists involved with gangsta rap saw the songs as a realistic portrayal of everyday life in the poorest communities, which was characterized by a great deal of violence and profanity. N.W.A described their music as profiling the struggles of life in the Los Angeles ghetto of Compton. Others more critical of this genre felt it glorified violence, drugs, and gang life and was an exaggerated look at urban impoverished communities. This song received much negative media coverage because of its portrayal of law enforcement personnel with its emphasis on the targeting of black youth by the police. Authorities worked hard to silence N.W.A in the late 1980s but this only resulted in skyrocketing record sales following the arrests of the band members of N.W.A after their concerts (Ogbar, 2007; Sternheimer, 2003). In this song, N.W.A put the police department on trial and one of the band members testifies against racial profiling (Ogbar, 2007). Gangsta rap’s influence was an important part of rap music but its influence was altered following the deaths of two rap stars Biggie Smalls and Tupac Shakur and became a “caricature of itself” (Du Noyer, 2003, pg. 348). However, there are a
small number of researchers who note the positive aspects of rap/hip hop music (Miranda & Claes, 2007) as well as Stephens, Braithwaite and Taylor (1998). Miranda and Claes stated that hip hop has many songs about empowerment and positive emotions. Stephens and colleagues used hip hop music to inform a small group of African American adolescents about HIV/AIDS protection, which they found was more helpful than merely providing a lecture about the need for protection.

**Heavy Metal Music**

Heavy metal music is reported to have begun in the mid to late 1960s as a backlash to the hippie subculture (Borthwick & Moy, 2004). Heavy metal music is “characterized by crashing guitars, pounding percussion and ear splitting volume” (Gross, 1990, p. 119). There is some controversy about which band should be credited with the beginning of the heavy metal music sound. Some music critics attribute Steppenwolf’s song “Born to be Wild” in whose lyrics the phrase “heavy metal thunder” appears. Others attribute the music of Black Sabbath, Blue Cheer or Led Zeppelin as creating the heavy music category (Gross, 1990). Many writers about this genre see “power” as the overwhelming theme of this music (Christe, 2003; Gross, 1990; Weinstein, 2000). Weinstein specifically stated that the “power of heavy metal is meant to overwhelm, to sweep the listener into the sound and then lend to the listener the sense of power” (p. 23). Its audience until the early 1980s was predominately male, white and working class; currently however the audience is mixed gender but still mainly white (Wasler, 1993).
The types of heavy metal include classic metal (Black Sabbath, Led Zeppelin), U.S. Stadium metal (Kiss, Aerosmith), New wave British metal (Judas Priest, Iron Maiden), Video-influenced metal (Twisted Sister, Poison), Trash/death metal (Metallica, Megadeth, Incantation), Grunge (Nirvana, Pearl Jam), Nu metal (Linkin Park, Limp Biskit) (Borthwick & Moy, 2004, p. 140).

Heavy metal music also has a history of controversy and a long history of being condemned by conservatives (Epstein & Pratto, 1990; Weinstein, 2000). Weinstein (2000) stated that conservatives took issue with metal’s themes of evil and the appropriation of Christian symbols and with the sound. Twenty years ago, the Parents Music Resource Centre (PMRC) alerted the public to their concerns about heavy metal music. In particular, the music of Ozzy Osbourne came under scrutiny, particularly one song he performed entitled “Suicide Solution.” Despite the title, the song in fact turned out to be about how dangerous alcohol is when it leads to alcoholism. The group at the PMRC linked this song with the rise of adolescent suicides. Metal music is often characterized by the artistic exploration of more negative themes such as despair, mental pain, death, suicide, and depression (Arnett, 2004; Christenson & Roberts, 1998; Crozier, 1997; Hansen & Hansen, 1991).

In 1990, the band Judas Priest was placed on trial with their recording company by the families of two youths who had carried out a suicide pact, which the family
believed was encouraged by one of the band’s songs. The case was dismissed but received considerable media coverage (Litman & Farberow, 1994). More recently female college students rated heavy metal music more negatively than other types of popular music. The female students also reported lower expectations for individuals who reported liking heavy metal music (Hall, 2007). Despite the common public perception of the negative effects of heavy metal, many new books dispute this notion and address the value and artistry of this genre (Christe, 2003; Friedlander, 2006; Wasler, 1993; Weinstein, 2003).

There is only one heavy metal song that the youth listened to in this study, which is by the thrash metal band Incantation, entitled “Entrantment of Evil.” Thrash metal is metal played at high speed with violent sounds conveying a sense of doom and chaos (Arnett, 1996; Stack, Gundlach & Reeves, 1994; Wasler, 1993; Weinstein, 2000). Metallica was described as one of the founders of this subgroup of heavy metal. Thrash metal is described as focusing on chaos and on the real horrors of the world – isolation, alienation, and the destruction of the environment (Du Noyer, 2003). The band Incantation was founded in 1990 and debuted “Entrantment of Evil” on EP soon after. This song was described as containing all the elements that thrash metal fans seek including a fast tempo, an obsession with Satanism and grunting, evil-sounding vocals (retrieved from Billboard.com on April 13, 2008).
Alternative Music

This music style has been described with many terms including post punk music, indie, new music, and college rock. However, by 1990, this genre was called alternative rock. The use of the term *alternative* gained popular exposure in 1991 when it was implemented as a musical category in the Grammy Awards and the MTV Video Music Awards (Cross, 1999). It is defined as music that emerged following the punk rock movement of the 1980s and is outside of the commercialism of mainstream pop music (Christenson & Roberts, 1998; Dunoyer, 2003; Gold, 1987; Hansen & Hansen, 1991). A member of one of the most influential punk bands, The Dead Kennedys band member, Jello Biafra described their purpose as mocking the Christian right, yuppies, material wealth, and the political apathy they believed to be rampant during the 1980s (Kennedy, 1990). One of the first popular alternative rock bands is R.E.M., which began on college radio, which they used as a base to break into musical mainstream without “selling out” to record company demands (Larkin, 1998). The popularity of alternative rock in the early 1990s was assisted by MTV and Lollapalooza, a touring festival that helped expose many alternative bands including Nine Inch Nails, The Smashing Pumpkins, and Hole (Friedlander, 2006).

The two artists used to represent this genre for this research were Sinéad O’Connor and the band LaTour. LaTour was the stage name of William LaTour. His hit song in 1991 was entitled “People are Still Having Sex,” which climbed to number one on the Hot Dance Music Club Play chart and became a Hot 100 Top
LaTour is considered to have true one-hit wonder status. The researcher heard this song on an alternative radio station CFNY-FM now the EDGE 102.1. It was considered alternative in Canada because of the racy lyrics and the monotone voice of the vocalist LaTour at the time. It was clearly sexual in a mocking and sarcastic manner that appealed to many adolescents (and adults).

Sinéad O’Connor has one of the most controversial pop musical careers. She emerged in the late 1980s from Ireland with a severe skinhead crop and angelic features. Her powerful vocals became universally recognized in 1990 with her version of Prince’s song “Nothing Compares 2 U.” The accompanying album, *I Do Not Want What I Haven’t Got* was a global smash but her political opinions garnered her the most publicity. O’Connor publicly criticized the British presence in Ireland and was critical of the Catholic Church. In 1992, she tore up a picture of the pope on American television (Du Novey, 2003). Despite O’Connor’s reputation, “Nothing Compares 2 U” is a hauntingly romantic song about love.

*Classic Rock*

Classic rock originated from the radio-programming format, which evolved from the focus on album-oriented rock in the 1960s and 1970s. However, currently this rock music genre focuses on a play list of songs ranging from the early 1960s through the late 1980s (Christenson & Roberts, 1998). Examples of classic rock artists include the Beatles, the Who, Pink Floyd, and the Eagles.
The two artists used in this research are David Bowie and the band the Moody Blues.

The song “Space Oddity” by David Bowie was one of the songs chosen for this genre. It was released in 1969 and became Bowie’s first hit in a long career. It was reported as successful because it was used by the B.B.C. as background music in its television coverage of the Apollo missions. It eventually reached the no. 5 position on the U.K. charts and also did well in North America (Cross, 1999). The summer before also saw the release of Stanley Kubrick’s film 2001: A Space Odyssey, and it was reported that Bowie had used the character (Frank Poole) from this movie as a template for Major Tom in the song (Cross, 1999; McLeod, 2003).

The second song was “Nights in White Satin” performed by the Moody Blues. This song was not popular when first released in 1967 due to its length of 7 minutes and 38 seconds. However, in 1972 it was re-released following the success of other longer running songs “Hey Jude and Layla.” The London Festival Orchestra provided the musical accompaniment throughout which reached its climax before and after the song itself. Around the 6-minute mark, a voice is heard reciting the “Late Lament” poem. The song is unusual with its sense of drama from the orchestral sections of the song, but it is described as a tale of yearning love from afar. The song ranked #36 on the B.B.C. Radio 2’s Sold Songs Top 100 list of all time. The song has garnered much critical acclaim.
and is considered one of the best classic rock songs of all time (Friedlander, 2006).

Pop Music

Pop music is found in the “broad spectrum of mainstream popular music” (Holt, 2007, p. 17). Examples of pop artists include Britney Spears, Backstreet Boys, and Celine Dion. These artists tend to employ professional teams of producers and managers and focus their music on what the team thinks will have mass appeal. They have high volume sales and large public exposure.

In 1991 Crystal Waters sang “Gypsy Woman (She’s Homeless)”, which became a worldwide hit, memorable for its refrain (la da dee la doo dow) and its keyboard riff. It was a catchy song at the time and the track reached #8 on the Billboard Hot 100, finding even more success in the U.K. where it reached #2. The song was nominated for American Music Award Favourite Single – Dance for 1991 and Crystal Waters was nominated for Favourite Artist – Dance and Favourite New Artist – Dance for the same year.

Madonna is one of pop music's greatest icons and has become one of the most commercially successful stars of her time (Du Noyer, 2003). Madonna in the early 1990s had the ability to stir violent emotions particularly with her songs and music videos. The Anti-Defamation League denounced her for her single Justify My Love (Christenson & Roberts, 1998). This music video was described as
“quintessential Madonna – with its emphasis on sexual nuance which has characterized her songs, is effected through vocal timbre, which has a sense of intimacy in its breathy quality – wanting, needing, waiting” (Whitely, 1997, p. 265). Madonna’s videos have stood out as being highly sexual with dancing, flirting, and boys and girls meeting and pairing up and parting again. The appeal of her songs may be precisely the fact that “they are so predictable and demand so little from the listener – but a pleasure for the moment – to dance to, to sing alone, and to fantasize with” (Arnett, 2002, p. 260).

Paula Abdul emerged from being a virtually unknown dancer to one of the most popular female performers of all time and she was a judge on the television show American Idol. Her song “Rush, Rush” hit number one on the Hot 100 Billboard chart on June 15, 1991, where it remained for five weeks as number one. Abdul and the Family Stand wrote the song collaboratively. Paula Abdul had unprecedented success with her debut album Forever Your Girl and “Rush, Rush was the first single off the next album called Spellbound. “Rush, Rush” lasted 10 weeks on the charts (Rosen, 1996).

Themes in the Music Genres

The 10 pieces of music were also selected based on the themes in the music. The themes were chosen to represent issues related to adolescent development. The five themes were moral issues, fantasy, romance, sexual, aggression/violence, and romance. The three music experts and myself were in agreement
about which songs represented the themes and genres. Both the songs “Space Oddity” and “Nights in White Satin” were considered to represent the theme of fantasy. “Space Oddity” describes a space traveller and his plight in space. “Nights in White Satin” through its mixture of powerful instrumentals and reciting of poetry in the middle of the song, suggested the category of fantasy. The theme of moral value was represented by the two songs, “Pray” and “Gypsy Woman (She’s Homeless)” because of the lyrics in both songs. “Pray” referred to the singer’s experience of God and the latter song described the issue of homelessness. The songs “Justify My Love” and “People are Still Having Sex” were utilized to capture the sexual theme because of the lyrics as well as by the delivery by the recording artists (Madonna and LaTour). LaTour sang in a monotone describing the sexual lives of others and Madonna sang in a husky suggestive tone. The theme of romance was represented by the two songs “Nothing Compares 2 U” and “Rush, Rush” by the lyrics and the passionate delivery by Sinéad O’Connor and the upbeat happy delivery by Paula Abdul. Lastly, two songs (“Entrantment of Evil” and “F*** tha Police”) represented the theme of aggression from their lyrics as well as the musical sound of the songs.

Music and the Semantic Differential Scales

The experimental study of aesthetic reactions to works of art was first undertaken early in the twentieth century. Hargreaves, Messerschmidt and Rubert (1980) reported that the early interest in aesthetic reactions to music declined in the decades spanning the 1930s to the 1950s and research since then has been
sparse and uncoordinated. However, in the 1970s with the advent of "the new experimental aesthetics" (Berlyne, 1974, p. 5), many studies applied the semantic differential technique to the analysis of music preference (Albert, 1978; Bartel, 1988, 1991, 1992; Coffman, Gfeller, Eckert, 1995; Costa, Bitti & Bonfiglioli, 2000; Darling, 1982; Gfeller, Asmus, Eckert, 1991; Gfeller & Coffman, 1991; Gray & Wheeler, 1967; Hare, 1975; Keil & Keil, 1966; Nielzen & Cesarec, 1981; Schubert & Fabian, 2006). The semantic differential technique has also been applied to the cross-cultural universality of meaning with similar results found in other countries (Osgood, 1962; Osgood, Succi & Tannenbaum, 1957).

Berlyne (1974) asserted that the major determinant of aesthetic response is arousal, in which the observer combines different aspects of the stimuli. The resultant arousal determines the likelihood of further exploration of that stimulus. This study explores the meaning and process by which preference and emotional response were determined for three different adolescent groups with respect to five genres of popular music.

According to Miller (1990), there is “a bi-polar organization to human cognitive processes, a pulling between opposite poles or forces” (p. 70). The semantic differential scales are derived to illustrate this with such scales as good-bad, happy-sad, and ugly-beautiful. Miller (1990) also stated that all subjects attribute positive polarities together, for example, “strong” tends to be associated with “active” and good rather than sedentary and bad. In this study, the scale
comprised seven possible degrees of judgment, with four at the mid-point designating neutrality or indecision. The subject decoded the musical stimuli to place his or her reaction in a semantic space consisting of a pattern of bipolar reactions of varying intensities depending on the intensity of the reaction to the stimulus. Both Miller (1990) and Edmonston (1966) verified the use of the semantic differential technique in the evaluation of musical stimuli.

There were several reasons for the selection of the semantic differential (SD) scale. Previous research on the meaning of musical preferences has been hampered by the lack of operational definitions and adequate scales to measure response. Three semantic dimensions of Evaluation, Potency and Activity have been used to reflect the mediating responses associated with the symbolic representation of an environmental stimulus. The semantic differential scale has also been frequently used as an index of the connotative, affective, or emotional dimensions of meaning. The semantic differential data can be used as a measure of affective meaning and musical preference.

The semantic differential scales in this study were used to determine both preference and to ascribe meaning including emotional response to popular music for the three adolescent groups (psychiatric, depressed, and non-psychiatric). In the present study all of the customary adjectives were used as well as some additional ones, which were considered relevant to this age group and the type of music used. The following adjective pairs were modified in order
to make it clear to the three groups of adolescents the meaning of the adjective pairs. For example, clear/indefinite was changed to clear/unclear and carefree/melancholy to carefree/sad. The additional pairs were fantasy/not fantasy, moral issues/not moral issues, romantic/not romantic, violent/non-violent, and sexy/not sexy. I added these adjectives because of their relevance to adolescent development and called this new group of semantic differential scales the Adolescent Semantic Differential Scales in order to differentiate my instrument from the standard semantic differential scales created by Osgood (1962).

This approach to the understanding of musical experience was considered less likely to be influenced by demand characteristics of the researcher and by their peers. While the WMQ may have provided the research subjects with cues as to the expected answers, the open-ended SD scales did not. It was important that the adolescents in this study not try and guess the intentions of the researcher when they listened to the music due to the controversy of the alleged link of popular music with youth violence at the time of the research.

This model suggests that theoretically there exists a "semantic space" of $n$ (or unlimited) dimensions in which meaning might be located. However, Osgood's work (1957) has found a customary three-dimensional semantic space of Evaluative (good-bad), Potency (strong-weak), and Activity (active-passive) for affective meaning through the application of a factor-analytic measurement
model. This framework of the three factors has been found to be universal in how individuals evaluate their social environment regardless of language or culture (Miller, 1990; Osgood, et al., 1957). Most studies using the semantic differential scales found the first two factors of Evaluation and Potency. A property of this test is the strength of the Evaluative factor in all research in this area as we all judge stimuli as part of our emotional reaction to music. Many studies have found alternative third factors instead of the Activity factor postulated by Osgood and colleagues. Other third factors found in the research include Shallow/Deep (Gray & Wheeler, 1967) and Musical Violence by Albert (1978).

Various authors have described their use of the semantic differential scales. Albert (1978) used the scales to determine meaning of perceived violence in rock music through musical intensity and the violent content of lyrics. Schubert and Fabian (2006) used the scales to measure the expressiveness of five different interpretations of two pieces of baroque music. Several researchers described their use of semantic differential scales to measure the emotional meaning of music (Coffman et al., 1995; Gfeller et al., 1991; Gfeller & Coffman, 1991; Gray & Wheeler, 1967; Nielzen & Cesarec, 1981; Nordenstreng, 1968). Other investigators have described their use of the semantic differential scales for decoding or exploring the emotional expressiveness of the music (HaCohen & Wagner, 1997; Hare, 1975; Holbrook & Huber, 1979; Keil & Keil, 1966; Schubert & Fabian, 2006; White & Butler, 1968). Lastly, Bartel (1991, 1992) used the
scales to examine the cognitive-affective response to music by participants. However, there remains some uncertainty whether it is feelings or meanings that are being differentiated and factored into dimensions; however it is beyond the scope of this thesis to resolve this issue.

In the research utilizing music and the semantic differential scales, sample sizes ranged from under 100 subjects to just over 600 individuals with the majority of the studies utilizing sample sizes of fewer than 100 subjects. Studies that had under 100 subjects included Bartel (1992); Costa, Bitti & Bonfiglioli (2000); Darling (1982); Edmonston (1966); Gray & Wheeler (1967); Hare (1975); Holbrook & Huber (1979); Keil & Keil (1966); Nielzen & Cesarec (1981); Nordenstreng (1968); Schubert & Fabian (2006). Research utilizing sample sizes that ranged from over 100 to 607 individuals included Albert (1978); Bartel (1991); Coffman et al. (1995); Deihl, Schneider & Petress (1983); Gfeller et al. (1991); Gfeller & Coffman (1991); HaCohen & Wagner (1997); White & Butler (1968).

Of the studies found to employ the semantic differential scales with music, the majority cited in this chapter used university students with only five studies listed above using adult subjects. The research of Keil and Keil (1966) was the only study that used adolescent subjects. As well, most of these studies used classical music with only Albert (1978) exclusively using rock music. An early study by Gray and Wheeler (1967) used songs representative of the folk music
movement at that time. Many of the earlier studies used a wide range of musical
Nordenstreng (1968) had subjects listen to 10 pieces of music including dance,
chamber, chorus, tango, soprano, organ, piano, pop, and symphony. White and
Butler (1968) asked subjects to listen to 20 excerpts from between 1913 to 1962
that used atonality, aleatory techniques, electronic music, extreme dissonance,
music for percussion ensemble, and poitillisto use of widely diverse tone colours.
Darling (1982) in his first pilot study started with baroque, contemporary art
music, and country-western and expanded in subsequent pilot studies to add
popular music and modern jazz. As well, Deihl and colleagues (1983) used
music that ranged from classical music to punk rock music. A later study by
Bartel (1991) used country, jazz, and classical. Classical music was used in the
following studies: Costa, Bitti and Bonfiglioli (2000), harmonic intervals within an
octave and re-produced octave in both a high register and low register; Hare
(1975) music excerpts of European tonal music (1700-1900); and Nielzen and
Cesarec (1981), instrumental music created by one of the authors. Three
research studies originating from Iowa University utilized five different conditions
of atonal music and text (Coffman et al., 1995; Gfeller et al., 1991 and Gfeller and
Wagner’s Ring Cycle and Schubert and Fabian (2006) requested their subjects
rate two pieces of music by Bach interpreted five different ways.
Some research in this area excluded the more obvious Evaluative scales in order to emphasize the other dimensions of Potency and Activity, to reduce the usual prominence of the Evaluative factor. The research of Bartel (1991, 1992), Hare (1975) and Keil and Keil (1966) are examples. In contrast, Darling (1982) conducted research in which he refined the adjectives most pertinent to the Evaluative factor in order to focus on the attitude towards selected musical styles.

**Music Preference**

Albert (1978) found that music rated with high violent content had the lowest preference for his moderately sized group of university students. Diehl and colleagues (1983) as part of a large telephone survey of 607 participants asked the respondents to evaluate classical, country and western, jazz, rock, punk rock, big band, soul, folk, beautiful music, and opera. The participants were asked to evaluate each genre of music on a scale of 1 to 7. Three factors emerged – Factor 1 was labeled *High Brow-Traditional*; Factor 2 was labeled *Contemporary-Progressive* and the third factor was labeled *Middlebrow-Traditional*. They concluded that music preferences tend to be grouped along these three dimensions rather than by specific categories. For example, people who liked classical music also tended to like opera, big band, folk, and jazz.

**Research Utilizing Adolescent Subjects**

Keil and Keil (1966) used the semantic differential scales to determine the perception of Indian, classical, blues, and jazz on musical moods. The subjects
were 87 middle-class American students. Seven pieces of music were chosen to reflect these musical moods. The researchers found six dimensions – flexibility, atmosphere, agitation, stability, potency, and warmth. The researchers wanted to determine whether the subjects could determine the mood of music that was outside their listening experience, especially the Indian music. They did find that the subjects could detect the sombre moods of Indian music but were unable to detect the mood of the Indian music that the researchers described as conveying “religious joy” (p. 170). They also found that the blues music was located in the same general semantic space as the heavier Indian ragas. Keil and Keil concluded that the expressive quality of music could be understood regardless of the cultural background.

*The Evaluative, Potency and Activity Factors*

The Evaluative factor is the dimension that is always the first factor and contains most of the variance. It is an individual’s evaluation of the object or concept being rated corresponding to the favourable-unfavourable dimension in more traditional attitude scales. University students who majored in music used the Evaluative factor significantly more than non-music majors across all musical conditions (Coffman et al., 1995). Naïve listeners used higher evaluation ratings for more commercial type music that was similar to common western music (Gfeller et al. 1991).
The Potency factor was found to be important in many studies as an individual’s perception of the potency or power of the music. This factor reflects the intensity that the music evokes in the listener. Albert (1978) found this to be an important factor in his research on how university students determined how violent rock music was rated in his study. They found that musical intensity and lyrics interacted for the perception of musical violence. Females in the research conducted by Coffman and colleagues (1995) rated all of the five treatment conditions as significantly more potent than the male university students. Music majors also assigned significantly higher potency ratings than non-music majors.

The Activity factor was found to be important in some studies as an individual’s perception of the activity or movement in the music. Gender differences found in the research on this factor is discussed below. Gfeller and colleagues (1995) found the Activity factor was strongest for the atonal music condition in contrast to the text-plus background music condition.

**Gender Differences**

Unfortunately many of the early research studies as well as current research studies did not examine gender (e.g., Keil & Keil, 1966; Holbrook & Huber, 1979, Schubert & Fabian, 2006). However gender differences were found in the following studies: (Coffman et al., 1995; Costa et al., 2000; Darling, 1982; Nielzen & Cesarec, 1981). Females rated significantly higher on the Activity factor than males. Specifically, Costa and colleagues (2000) found females
rated the bi-chords to feelings of being more restless, worried, furious, and tense significantly more than males. As well, Coffman and colleagues (1995) found that females responded with higher complexity ratings and that in several areas they reported their feelings more intensely than males. Similarly, Nielzen and Cesarec (1981) found that women experienced tense music as more tense than men.

Age Differences
Many of the studies used in this chapter did not analyze by age as the vast majority were based on small studies with either university studies or adults. However, the research by Nielzen and Cesarec (1981) did find that their older subjects experienced the music as more attractive than the younger ones.

Personality Differences
Nielzen and Cesarec (1981) found that adults who rated themselves as having the personality characteristics of being easygoing and dominant experienced the music in their study as more happy, humorous, impulsive, and active than the other adults in the study. Individuals who rated themselves as valuing achievement and autonomy tended to rate music as less gay and gloomy despite the general rating of the music as being more gloomy and gay. The personality traits were assessed using the Cesarec-Mark’s Personality Scheme.
Bartel (1991), using the Myers-Briggs personality test, found that the higher the self-perception of musical ability, the more cognitive was the related response to music. He also found that the more dominant the Judging personality characteristics, the more cognitive the response to music. A cognitive response to country music was related to an Intuitive personality and an affective response to country music was related to a Sensing personality.

Conclusion

There are many studies using the semantic different scales with different music genres. All the studies attempted to measure various aspects of the listeners’ perception of music. Most of the studies were conducted with university students and utilized classical music. There was only one study, that was conducted 40 years ago, that used adolescent subjects. Unfortunately, many of the studies were also conducted with small samples of less than 50 subjects (e.g., Costa, Bitti & Bonfiglioli, 2000; Gray & Wheeler, 1967; Holbrook & Huber, 1979, Schubert & Fabian, 2006). However, it is important to note the stability of the three factors of Evaluative, Potency, and Activity across various research designs. The Evaluative factor was always found to be the first and strongest factor. The technique is an important means of having participants listen to music and not be influenced by their perception of what the researcher is aiming to achieve. One variable that appeared to influence the research in this area was the level of musical training of the subjects (e.g., Bartel, 1991; Gfeller, 1995; Hare, 1975). There were no studies that examined the psychological health of
the listener as contributing to their experience of listening to music and using the semantic differential scales.
Adolescence is characterized by information seeking regarding developmental tasks (Chapin, 2000). Because adolescents strive for greater independence from parents, the mass media is one of the many sources of alternative information (Fine et al., 1993). This section will examine the developmental issues of gender, level of psychological health, personality, school commitment, and age and their relationship to adolescent development and musical experience. Each section will focus on the specific developmental issue and the research related to music experience and preference.

**Gender and Music Experience**

A key aspect of adolescence is the development and consolidation of gender role identity. This section will examine the role gender plays in music preference and experience. Gender effects are also closely related to age, as girls tend to mature earlier than boys (Petersen, Sarigiani & Kennedy, 1991). Most of the research on musical experience has focused on differences in preference. For the past 30 years, it has appeared that there are significant differences in music taste between males and females. Generally, girls tend to like pop/mainstream music and boys like hard rock/non-mainstream music. A growing body of research is also exploring the different ways males and females use music in their lives (Christenson & Roberts, 1998). The role that popular music plays for
male and female adolescents is widely speculated upon but only recently been researched (for example, Frith, 1983; Frith & McRobbie, 1978-1979; Roe & Jarlboro, 1998). Does it merely reflect gender roles or does it create and maintain gender roles. These questions are explored in the next section.

*Theoretical Perspectives on Gender Differences and Popular Music*

In the late 1970s, researchers began emphasizing the gender-based differentiation of the adolescent media audience in general and the popular music audience in particular (Roe & Jarlboro, 1998). Many early studies did not investigate the differences between males and females in terms of music preference (for example, Denisoff & Levine, 1972). The first article to draw attention to gender differences was by Frith and McRobbie (1978-1979), which, despite being almost 30 years old, is still cited extensively. Frith and McRobbie’s major contention was that rock music operated both as a form of sexual expression and as a form of sexual control. They described two dominant forms of rock music being “cock rock” and “teenybop.” Cock rock was depicted as an explicit, crude and often aggressive form of male sexuality represented by performers such as Mick Jagger, Robert Plant, and others who sang predominately to male audiences. Female sexuality was represented by the soft ballad pop music sung exclusively to girls by male singers represented by such performers as Donny Osmond, David Soul, and others. Girls were encouraged to interpret their sexuality in terms of romance and to focus on issues of love and commitment. The macho stance of cock rock was as much a fantasy for men as
teeny-bop romance was for women. Frith and McRobbie concluded that both in its presentation and use, rock reinforced the traditional roles of what it meant to be male and female.

Frith and McRobbie also postulated that through the vehicle of concerts, rock music allowed girls the opportunity to express a collective identity and to go out as a group similar to their male counterparts. They stated that since females tended to be more regulated than males and thereby spent more time at home, attending concerts was one of the ways they could leave the house. Twenty years later, Christenson and Roberts (1998) concurred with this view that girls remain more regulated than boys in terms of their activities outside of school. Unlike their brothers, girls have little chance to get together in groups as they do not generally attend sporting events and have more parental controls and at-home responsibilities. However, Christenson and Roberts also acknowledged that the boundaries between cock rock and pop music were often blurred and many recording artists occupy both categories. Thus, suggesting that the differentiation by gender roles of music preference is no longer so rigid as it might have been 30 years ago.

Frith & Goodwin (1990) wrote an afterthought to his original paper with McRobbie, in which he maintained that popular music continued to play the same part in the organization of adolescent gender roles. Men were still in charge and the few successful women in the popular music industry were so because of their
non-traditional representation of femininity. Male sexuality with its emphasis on heterosexuality continued to dominate whereas homosexual and bisexual orientations were generally ignored.

Wasler (1993) examined the relationship between gender and heavy metal music through the music, the musicians, and the audience. The audience for heavy metal music tends to be adolescent males. He claimed that fans experienced confirmation or alteration of their gendered identities through involvement with heavy metal music. Heavy metal music for Wasler not only replicated the sexism within society but also provided space for some women (performers or fans) to identify with and thus access the power of this music for themselves.

Fast (2001) disagreed with the theoretical stance of Frith and McRobbie and rather, found that the way in which popular music is used depends on the individual. She did not concur with their split of rock and pop along gender lines whereby rock was considered masculine and pop feminine. She interpreted that phenomena such as the popularity of the Beatles and Elvis Presley were important ways for girls to express and explore their sexuality. Both the Beatles and Elvis offered alternative constructions of gender and a safe way for girls to explore and express their sexuality. In other words, idolizing these performers was an empowering act, not a passive one, as they were not seen as potential “husband” material. Thus, this experience allowed girls to step out of middle-class gender expectations.
Riley (2004) explained that for the past 50 years, rock n’ roll has challenged its listeners’ ideas of gender. Performers such as Elvis Presley and Tina Turner dramatically changed masculine and feminine ideals in their songs and in their lifestyles. According to Riley, rock’s messages were ahead of the other media including television. He deemed that rock music illustrated a healthier model of male-female relations and he selected key figures whose work he felt demonstrated this model, including the Rolling Stones, Joni Mitchell, Roseanne Cash, Chrissie Hynde, and others. Riley ended with the controversial relationship between Kurt Cobain and Courtney Love since they lived as performers, parents, partners and rock performers. Kurt Cobain and Courtney Love were known for their public break-ups and custody battles for their daughter.

*Gender Differences in Music Preference*

Research has shown significant and consistent differences between males and females on music preference. Specifically females prefer pop or mainstream music whereas males are more likely to prefer hard rock or non-mainstream music (Christenson & Roberts, 1998; Larson, 1995; Martin et al., 1993; O’Neill, 1997; Rawlings & Ciancarelli, 1997; Russell, 1997; Tanner, 1981). Similarly females have been found to prefer soft rock videos but males preferred hard rock videos (Toney & Weaver, 1994). Early research by Roe (1983) found a significant gender differences on music preferences and commitment to school.
Roe (1983) found that girls’ early attachment to pop music correlated with negative commitment to school and lower expectations of job status four years later. Only for boys who reported a preference for punk music was there a correlation with a negative commitment to school and lower job status expectation for the future (Roe, 1983).

**Age Differences Based on Gender**

Roe (1999) reported that girls begin to increase their listening to music at around 11-12 years of age and continued until around 19-20 years at which time it decreased. Boys, however, increased listening at approximately 13-14 years of age, continuing until the age of 21-22 at which time it decreased.

**Other Behaviours Differentiated by Gender**

Research has demonstrated that males and females reported different ways of using music in their lives. Girls were found to like a wider range of musical styles (Crowther & Durkin, 1982; Hargreaves et al., 1995) than boys. Girls reported also dancing to music as they listened (Rosebaum & Prinsky, 1987) and idolized pop stars more than males (Ravis, Bar-Tal, Raviv & Ben-Horin, 1996). Males were consistently more likely than females to use music as a tool to become energized or pumped up (Arnett, 1996; Christenson & Roberts, 1998; Wells, 1990). In contrast, females were found more likely to listen to music to fill emotional needs such as when they felt sad or lonely, or to work through a “bad mood” (Christenson & Roberts, 1998; North et al., 1998; Roe, 1998). Lastly,
males were more likely than females to say they listened to music to create a good impression on their peers and friends or to appear “cool” (North et al., 1998).

Summary

One of the developmental tasks of adolescence is gaining a sense of identity both in terms of one’s gender and sense of self (Arnett, 2004; Chapin, 2000; Larson, 1995; Steele & Brown, 1995). The significant effects of gender on music preference and experience during adolescence are not surprising because of the development of gender role identity and cross-gender relationships that begin during this developmental stage. For the past 20 years, girls have consistently reported liking pop and mainstream music whereas boys have reported preferring non-mainstream music such as heavy metal or hard rock.

In conclusion, gender differences in uses and preference for popular music must be understood within the greater societal context of gender role socialization. Boys and girls receive different messages in our culture, whereby girls are expected to be pleasant, beautiful, nurturing, and conforming and conversely, boys are expected to be independent, competent, tough, and aggressive (Christenson & Roberts, 1998). The research in this area suggests that popular music is one of many sources that adolescents utilize to make sense of themselves and their world.
Psychological Health and Music Experience

Researchers, particularly over the last 30 years, have examined the interaction of popular music and psychopathology. Most of this research has focused on non-clinical high school students and on music genres that adults have labelled as deviant or oppositional. North and Hargreaves (2006) recently coined the term problem music to represent the genres of heavy metal/hard rock, hip hop/rap, and alternative/punk music. The reasons given for the problem music label comprise both the musical messages including lyrics and music style (e.g., loud, hard) and the lifestyles and stage personas of the performers. It is music labelled as problem because it is non-mainstream and often rebellious in content (North & Hargreaves, 2008). Some people believe that problem music can influence adolescents to engage in more negative behaviours (Litman & Farberow, 1994).

Generally, the research that uses problem music focuses on those adolescents who reported preferring this type of music and examines whether the adolescents' issues or behaviours differed from their peers who preferred less controversial and/or mainstream music. This perspective tends to see music as influencing adolescents' behaviour and all adolescents being vulnerable to the effects of problem music.

Some researchers have started with the premise that adolescents who were defined as “at risk or troubled” were more drawn to problem music because this type of music resonated with their internal states. The description of troubled or at risk covers a range of behaviours and beliefs including delinquency,
recklessness, adolescent turmoil, substance abuse, witchcraft beliefs, psychiatric illness, depression, and suicide ideation. According to this second perspective, the themes of suicide and violence in problem music could prove overwhelming and destructive to a youth with an already vulnerable sense of self. This perspective would suggest, for example, that the depressed or clinical adolescents used in this research would prefer problem music because it reflected the issues that they were struggling with.

From a developmental perspective, the question of whether adolescents are more vulnerable to music’s influence because they are turning away from parents and turning to peers and the media for information need to be explored. Christenson and Roberts (1998) have suggested that there are vulnerable adolescents who may be more susceptible to the messages in problem music styles as it resonates with their internal distress; however they emphasize that the music does not cause the distress. Nevertheless, the question remains whether it is factors within the music or within the individual or a combination of both that determine music’s influence and role during adolescence. Research has examined both developmental issues relevant to adolescence and different aspects of music experience, such as what the adolescent perceives is important about popular music for him or her as well as how the adolescent reacts emotionally to popular music. This research has attempted to capture the third perspective of looking at factors both within the music and within the adolescent as interacting with each other particularly from a developmental viewpoint. It is
not just the content of the music but also the internal state of the listener that interact particularly during adolescence.

Influential public statements have been issued from such groups as the Parents Music Resource Centre (“PMRC”), the American Academy of Pediatrics (Communication, 1996); the American Academy of Child and Adolescent Psychiatry (Villani, 2001), the Parent-Teacher Association (Scheel, 1999); the U.S. Surgeon General, and the Task Force of the Union of American Hebrew Congregations (United States and Canada) (Wass, Miller, Stevenson, 1989). The position of these groups is that there is a direct link connection between certain types of rock music and problematic behaviours in adolescence. The PMRC was formed to draw public attention to the perceived threat of disturbing music lyrics. This publicity resulted in a U.S. Senate Committee hearing and the recording industry agreeing to label CDs that have controversial lyrics with a parental warning label (Christenson & Roberts, 1998; Scheel & Westefeld, 1999; Sternheimer, 2003). Villani (2001) linked school murders and the rise of violent behaviour in children and adolescents in the United States with more violent media including television, music, and music videos. She conducted a 10-year review of the research related to the media and concluded that parents and medical practioners needed to pay attention to adolescents’ media preferences and its meaning for the adolescent in order to ascertain their risk of behaving violently.
Despite the public positions of the above-mentioned groups, there is no research evidence that listening to problem music causes troubled behaviour (Stratton & Zalanowski, 1997). However, many studies have found correlations between troubled behaviour and problem music preference. Unfortunately, much of the research findings are difficult to extrapolate due to flawed research designs. The flaws included the lack of uniformity in how music preference was determined, small sample sizes, measures that were inadequately described or validated and unacknowledged bias on behalf of the researchers. In many of the studies, only a small number of adolescents within large samples preferred deviant music, which makes it difficult to generalize to all adolescents. Also the neutrality of some research must be questioned because several researchers were members of the PMRC (King, 1988) and another researcher stated that he strongly disliked the music (Arnett, 1996). Nonetheless, the research identifies a small group of adolescents, particularly female adolescents, who preferred problem music, about whom there is concern (Christenson & Roberts, 1998; Martin, Clarke, Pearce, 1993). A more comprehensive examination of the problems in the research will be presented at the end of this section.

Heavy metal music was predominately the music used to represent a deviant music style. It has been described as making references to homicide, suicide, homicidal practices, and Satanism (King, 1988; Litman & Farberow, 1994). Three studies by Wass, Raup, Cerullo, Martel, Sperring (1988-1989); Wass, Miller, Stevenson (1989); and Wass, Miller and Redditt (1991) investigated music
that reflected themes of homicide, suicide, and Satanism regardless of genre.

Although more recent research has included such types as rap (for example, Miranda & Claes, 2004; Wester, Crown, Quatman & Heesacker, 1997), punk music (Gold, 1987), and rap and punk music together (Hansen & Hansen, 1991; Took & Weiss, 1994), the majority of studies utilized heavy metal music.

**Non-Clinical Adolescents**

Many studies entail surveying adolescent subjects and then focusing on the subgroup that preferred deviant music (for example, Arnett, 1991; 1996; Dent, Galaif, Sussman, Stacy, Burton, Flay, 1992; Hansen & Hansen, 1991; Martin, Clarke, Pearce, 1993; Miranda & Claes, 2004; Scheel & Westefeld, 1999; Wass, et al., 1988-1989; Wass & Stevenson, 1989). Most of these studies originated in the United States but other research surveyed Australian high school students (Martin et al., 1993), Dutch high school students (Mulder, ter Bogt, Raaj, 2007; Selfhout, Delsing, ter Bogt, Meeus, 2008) and several studies used Canadian high school students (Tanner, 1981; Lacourse, Claes & Villeneuve, 2001; Miranda & Claes, 2004).

University students were studied by the following researchers (Anderson, Carnagey, Eurbanks, 2003; Chen, Miller, Grub & Wailers, 2006; North & Hargreaves, 2005, 2006; Rustad, Small, Jobes, Safer & Peterson, 2003; Wester et al., 1997). Arnett (1991) conducted the only study that recruited 16-year-old subjects who were not in school although he also included high school students.
Arnett (1991) expanded his study to include female adolescents for his later research in 1996. Three studies included a range of ages from 12 to 20 years of age (Tanner, 1981; Arnett, 1991; Dent et al., 1992). Several studies focused on mid-adolescent subjects (Miranda & Claes, 2004; Klein et al., 1993; Martin et al., 1993; Wass, et al., 1988-1989; Wass et al., 1989), late adolescence (Scheel & Westefeld, 1999). Most of the studies included male and female groups but in three studies (Epstein, Pratto & Skipper, 1990; Dent et al., 1992; Lewis, 1980), gender was not differentiated and one study utilized only male subjects (Arnett, 1991).

The subgroup of adolescents who preferred problem music was often highlighted with this non-clinical group of adolescent studies. That is, all of the adolescents would be surveyed for music preference but the ones who reported problem music preference would be examined further. For example, Lewis (1981) found that 831 students within a sample of 2,286 students preferred heavy metal music. Wass and colleagues (1988-89) found 17.5% of their study was HSSR (rock music with lyrics that promoted homicide, suicide, or satanic practices) fans and in their expanded study (Wass et al., 1989), 17% similarly identified themselves as HSSR fans. Martin and colleagues (1993) combined the students who preferred metal/punk and rock music and found that this group consisted of 67% of males and only 25% females. Scheel & Westefeld (1999) found that 40% strongly liked or liked heavy metal music and of this group 64% were males and 27% females.
Substance Use

Four studies focused on music preference and substance abuse. Lewis (1981) and Dent and colleagues (1992) used samples of 831 and 758 adolescents respectively, Martin and colleagues included 227 high school students and the research by Chen and colleagues consisted of 1,056 adolescents. Lewis (1981) and Dent and colleagues (1992) examined whether there was a relationship between reported drug use and music preference. Martin and colleagues (1993) investigated drug use among many variables explored. A more recent study by Chen and colleagues (2008) examined substance abuse in conjunction with aggressive behaviours and sensation-seeking. Lewis (1981) found that subjects that were heavy metal fans reported significantly more drug use in all categories than other music fans but especially in the categories of stimulants, alcohol, and marijuana use. Dent and colleagues (1992) found moderate correlations between rap and heavy metal music and use of crack and tobacco. Martin and colleagues (1993) asked adolescents to fill out a drug-taking scale and examined its relationship to music preference. They found that overall those who preferred rock/metal music reported significantly more alcohol, tobacco, and marijuana use. Males and females who preferred rock/metal rated significantly higher on the drug-taking scale than their counterparts who preferred pop music. Chen and colleagues (2008) found that often listening to rap music was significantly related to alcohol use, problematic alcohol use, illicit drug use, and aggressive
behaviours even when controlling for listening to other genres of music, demographic characteristics, and sensation-seeking.

**Problematic Behaviours**

Problematic behaviours included self-reported measures of delinquent behaviour, street gang involvement, and violence. The earliest study examined 733 high school students used a measure regarding delinquency involvement among other measures including level of school commitment (Tanner, 1981). Tanner found adolescents who scored high on delinquent involvement were more likely than adolescents low on delinquent involvement to be heavy metal rock fans. The next study by Arnett (1991) found that heavy metal fans reported higher frequency of reckless and sensation-seeking behaviours. In a large study of 2,760 participants, Klein and colleagues (1993) defined risky behaviours such as cheating, stealing, cutting class, and driving a car without permission (Klein et al. 1993). They found that white (male and female) adolescents whose favourite musician played heavy metal music were significantly more likely to be in the high-risk group. The effect was stronger for the girls than boys. Arnett (1996) expanded his earlier study conducted in 1991 to include female subjects and used similar interview questions on sensation-seeking and reckless behaviour as in his earlier study with male subjects (Arnett, 1991). He found similar results with female metalheads in terms of higher sensation-seeking and reckless behaviour. The girls rated significantly higher on these behaviours than the non-fans but were not as extreme as the male metalheads. Arnett also noted that
there were significantly less female metalheads compared to male metalheads in the adolescent population.

Martin and colleagues (1993) used the delinquent subscale of the Achenbach Youth Self-Report (YSR) and a risk-taking scale Martin constructed to assess adolescents on deviant behaviour. Both males and females who preferred rock/metal scored higher on the YSR delinquency subscale. Boys however scored significantly higher than girls who preferred rock/metal. On the risk-taking scale, boys and girls who preferred rock/metal were significantly higher on risk-taking behaviours than pop music fans.

Miranda and Claes (2004) found that rap music was linked to deviant behaviours. They defined deviant behaviours as violence, theft, street gang involvement, mild, and hard drug use that they derived from a 50-item self-report questionnaire on deviant behaviours. The rap categories consisted of four rap genres including American rap, French rap, hip hop/soul, and gangsta (hardcore) rap. When all four genres were combined, they found rap music was significantly related to deviant behaviour. Preference for French rap (rap music imported from France) was linked with street gang involvement, mild and hard drug use, and violence. Gangsta rap preference was linked with more thefts whereas hip hop/soul preference was linked to less deviant behaviours. Unexpected findings were the lack of correlation between controversial gangsta rap to street gang involvement
as well as those youth who had a high preference for American rap reported less theft.

Despite the differences in how deviant behaviours were defined, these studies all found significant correlations with music preference and deviant behaviours. All of these studies were based on self-report measures so there was the risk of inflated or deflated reporting of behaviours depending on whether the adolescents guessed the nature of the study and wanted to go along or disprove the researchers’ perceived intentions. Two findings in Miranda and Claes’s (2004) research that were difficult to explain were the lack of connection with preference for gangsta rap and street gang involvement and the correlation of high preference for American rap with less theft.

Internalizing and Externalizing Behaviours

Two research projects from the Netherlands (Mulder et al., 2007 and Selfhout, Delsing, ter Bogt, 2008) examined the relationship between Dutch high school students, music preference, and internalizing/externalizing behaviours. Mulder and colleagues used a cluster analysis for preference in their survey of 4,159 adolescents from the ages of 12-16 years. They found that omnivores (like all kinds of music), rock-pop (like rock and pop), and urban (like Afro-American music and dislike rock) scored higher on aggressive and delinquent behaviour. Participants who preferred rock-pop and omnivores had a high prevalence of attention and thought problems. Selfhout and colleagues (2008) questioned 931
adolescents from 11-18 years in two waves at two-year intervals. They found preference was stable for hip hop and heavy metal music over this time period. They also found that preferences for both heavy metal and hip hop music predicted later externalizing problem behaviour, whereas there were no significant associations found between adolescents’ externalizing problem behaviours and later preferences for heavy metal music and hip hop.

**Suicide Risk**

The PMRC linked the rise in adolescent suicides with the popularity of heavy metal music, which, they believed promoted themes of suicide and violence to youth (Scheel & Westefeld, 1999). Many researchers and parents are also concerned about the rise of suicide rates in youth and have also explored possible risk factors including the influence of problem music. Five studies examined heavy metal music preference and suicidal risk for high school students (Lacourse, Claes & Villeneuve, 2001; Martin et al., 1993; Scheel & Westefeld, 1999; Wass, 1988-1989 and Wass et al., 1989). Martin and colleagues (1993) found fans of rock/metal reported significantly more suicidal thoughts and self-harm than fans of pop music. Again, female rock/metal fans were more extreme than their male counterparts and were significantly different than female pop music fans. Wass (1988-1989) and Wass and colleagues (1989) asked students about their beliefs about music with HSSR (rock music with lyrics that promoted homicide, suicide, or satanic practices) and its impact on young children and on the behaviour of troubled adolescents. The HSSR fans
were significantly more likely to state that young children could listen to this type of music and that this type of music did not affect troubled youth. However, there was a small group (25%) of the HSSR fans that believed that troubled youth were negatively effected. They found in both studies that HSSR fans were more likely than non-HSSR fans to have never-married parents and the researchers speculated whether the father was available. Similarly, Scheel and Westefeld (1999) found that heavy metal fans scored significantly higher on several subscales indicative of suicide risk and reported having more thoughts of killing themselves than other music fans. The difference was significant for both male and female heavy metal fans but was highly significant for female fans. Lastly, Lacourse and colleagues (2001) reported that female adolescents who reported liking heavy metal music were more likely to be a suicidal risk than male adolescents. However, this relationship with suicidal risk for females became non-significant when suicide risk factors were also examined.

Three studies examined suicidal risk among university students who preferred problem music (Anderson et al., 2003; North & Hargreaves, 2006; Rustard et al., 2003). Anderson and colleagues (2003), in a series of five experiments, found an increase in aggressive thoughts following college students listening to violent songs. Rustard and colleagues (2003) presented participants with rock music either with or without suicidal content. Responses to a subsequent storytelling task showed that the former group of participants wrote more scenarios with suicide-related themes (but did not score poorly on explicit measures of affect,
attitude and perceptions). North and Hargreaves (2006) found that liking for problem music was a significant predictor of experience with self-harming and thoughts of suicide. However, they also found that low self-esteem was consistently far better at predicting suicidal and self-harming thoughts than a preference for problem music.

Lester (1987) studied a small group of teenagers from a small town in Pennsylvania of whom three had committed suicide. He found that the preferred music of the group was heavy metal and that the two males who had completed suicide were particularly dedicated supporters. Lester found other elements beside a preference for heavy metal music that also contributed to the suicidal behaviour of this group, including heavy drug involvement, difficult relations with parents, poor self-image, and a small number of friends.

Litman and Farberow (1994) described their role as expert witnesses in a lawsuit in which a heavy metal band (Judas Priest) and its record company were sued for liability in the suicide and suicide attempt of two male youths. Litman and Farberow noted that the youths presented with a multitude of problems including drug use, school dropout, and losing touch with family and friends. They concluded, and the judge agreed, that an addiction to heavy metal music was not a cause of suicide but instead a risk factor among other behaviours.
Stack and colleagues (1994) examined the subculture of heavy metal magazine subscription and studied its correlation to adolescent suicide rates in 50 American states. They found the higher commitment to heavy metal subculture (i.e. subscriptions), the higher the suicide rate. The correlation between rate of subscriptions to *Metal Edge* (a popular heavy metal magazine) and suicide rate of 15-24-year-old youth was highly significant. Research has consistently found that heavy metal fans are extremely devoted fans through the level of concert going, CD buying, and magazine subscriptions. This finding remained even after controlling for variables linked to suicide (divorce rate, poverty, race, and religion). This approach was interesting but does not rule out the possibility that there were other factors possibly influencing the heavy metal magazine subscription rate, and the youth suicide rate.

Although these studies are disturbing and point to the need for more research in this area, some problems remain regarding the research designs. For example, the conclusions of three studies (Martin et al., 1993; Wass, 1988-1989; Wass et al., 1989) are only based on a single question about suicide risk. Lester (1987) was based on a small group of adolescents. Scheel and Westfeld (1999) used subscales suggestive of suicidal risk, but they wondered whether females were more willing to report suicidal thoughts and distress than their male counterparts. All of the researchers in this area were particularly concerned about the small number of intense fans, especially girls who seemed particularly vulnerable or at risk.
Troubled or At-Risk Adolescents

Three studies examined adolescent psychiatric patients (King, 1988; Took & Weiss, 1994; Weidinger & Demi, 1991). Two of the studies included inpatient adolescents of psychiatric facilities and Took and Weiss (1994) included adolescents obtained from an outpatient counselling service and psychiatric clinic. The last five studies examined adolescents defined as delinquent (Trostle, 1986; Gold, 1987; Epstein & Pratto, 1990; Epstein et al., 1990; Wass, Miller & Redditt, 1991). Epstein and Pratto (1990) described their experience as a staff monitor for a “Hard Rock” group. The adolescents studied were either from a middle school for behavioural problems or youth detention centres or identified by their caseworkers as “stoners” because of their known gang affiliations.

The problem music style found in these studies was predominately heavy metal (Trostle, 1986; King, 1988; Epstein & Pratto, 1990) but Epstein et al (1990); and Took & Weiss (1994) used rap and heavy metal; Gold (1987) used punk music only. Wass, Miller and Redditt (1991) used music with HSSR (rock music with lyrics that promoted homicide, suicide, or satanic practices) themes.

Many of these studies consisted of small sample sizes including the following: Gold (1987) 40 adolescents; Epstein & Pratto (1990) 14 adolescents; Took & Weiss (1994) 48 adolescents and Trostle (1986) 66 adolescents. The remaining studies comprised higher numbers of adolescents and included Epstein et al.
(1990) 80 subjects; Wass et al. (1991) 120 adolescent offenders and King (1988) 470 adolescent inpatients. Most of the studies had significantly more males than females in their groups except for King (1988) and Epstein and Pratto (1990). Took and Weiss (1994) addressed the unequal number of males and females in their heavy metal/rap group by adding more females from the other group (not fans of heavy metal/rap) in order to control for gender. Three of the studies were conducted over time: King’s (1988) research was performed over a three-year period; Epstein and Pratto (1990) for two months of the school year and Epstein et al, (1990) occurred over 18 months. Many of the studies included an age range from 12-20 years (Trostle, 1986; King, 1988; Epstein & Pratto, 1990; Epstein et al., 1990; Wass et al., 1991; Took & Weiss, 1994).

*Psychiatric Patients*

Took and Weiss (1994) questioned two groups of adolescents from an outpatient psychiatric clinic. The first group was fans of heavy metal/rap music and the second group enjoyed other types of popular music. They found that fans of heavy metal/rap music had a significantly higher incidence of school problems, sexual activity, arrests, and substance use than the second group. However, when the researchers controlled for gender as there were more males than females in their study, they found that only below-average current and elementary school grades, and a history of counselling in elementary school remained significant.
King (1988) studied three groups of adolescents from a psychiatric inpatient hospital. Adolescents in the first group were chemically dependent, the second group was diagnosed with a psychiatric and/or conduct disorder with a history of some drug abuse, and the last group were adolescents with a psychiatric disorder and/or conduct disorder who did not use drugs. King found that the adolescents who preferred heavy metal music reported significantly more drug use, precocious sexual activity, stealing, and violence.

Two of the studies with psychiatric adolescents found heavy metal music as the music most preferred, and Took and Weiss (1994) found both heavy metal and rap music. The studies by King (1988) and Took and Weiss (1994) shared common areas of concerns in that the adolescents had higher incidents of sexual activity, drug and alcohol use, arrests, and delinquent behaviour. Both King (1988) and Took and Weiss (1994) included responses from the adolescents’ parents in addition to responses from the adolescents and King (1988) also had access to court records.

Unique Studies related to Psychiatric Issues

Rosenbaum and Prinsky (1991) stated that there was no research that demonstrated a connection between punk or heavy metal music and delinquency despite public belief of such a connection. A researcher posed as a concerned father and contacted twelve inpatient psychiatric facilities that had treatment programs for adolescents. The father presented a scenario of his adolescent that
described only the adolescent’s music preference and appearance. There was no mention of violent or suicidal behaviour or any other behaviour that could be described as an actual symptom of mental illness. Ten of the 12 facilities informed the “father” that his adolescent should be hospitalized immediately. Many of the supervisors contacted assumed that there were drug problems because of the adolescent’s preference for heavy metal music. Only two facilities did not recommend hospitalization and both were public agencies. One of the facilities did not perceive the scenario as problematic and the other would not make a judgment over the phone. The authors acknowledged that the sample size was small but nevertheless highlighted the assumptions of many adults regarding heavy metal music.

Waite, Hillbrand, and Foster (1992) found that aggressive behaviour on a psychiatric ward significantly lessened after the removal of MTV television. The patients ranged in age from 18 to 64 years. The frequency of incidents of verbal aggression, physical aggression against others and physical aggression against objects were all reduced, but there was no significant change in aggression against the self. The authors suggested that the removal of MTV accomplished two things. The first was a significant change in situational cues for aggressive behaviours by the removal of music videos. The second was the reduced arousal of themes of aggression and sexuality that predominated music videos.
Delinquent Youth at Detention Centres or Special Schools


Trostle (1986) asked a group of self-identified stoners their beliefs on a witchcraft scale. Trostle found a very high correlation between the stoners and their reported preference for heavy metal music and several questions on paranormal beliefs. Gold (1987) compared two groups of delinquents one group who liked punk music and the other group who did not. He found no differences on self-image but found significant differences with the punk group reporting less family closeness and feeling less understood by their parents.

Epstein and Pratto (1990) studied a small group of 14 students who were members of a hard rock group at their school. One of the researchers attended the group as a staff monitor for two months. The researchers reported no link between listening to heavy metal music and delinquency based on their participation in this group. They did report several members cutting themselves. Epstein and colleagues (1990) surveyed a group of students in the same school as the previous research. They found that 94% of the adolescents preferred either heavy metal or rap music, but did not find that music preference predicted behaviour problems. Wass and colleagues (1991) explored the proportion of HSSR fans in two juvenile detention centres. The researchers found two major
differences between this group of adolescents and adolescents in their previous research. They found that 54% were HSSR fans compared to 17.5% of non-delinquent adolescents and that the offenders in this study were more similar in their attitudes and behaviours whether they were HSSR fans or not.

These studies found that the adolescents studied were more linked by their delinquent behaviours than the type of music preferred although all of the studies did find a higher preference for heavy metal music than non-delinquent adolescents.

**Critiques of the Research**

There were problems in the research in how music preference was determined thus making it challenging to compare studies. Many of the studies did not differentiate within the musical genre what type of music the adolescents preferred. For example, there is a major difference between a preference for thrash or death metal than the less controversial light heavy metal music such as Guns N’ Roses. It is difficult to discern where in the heavy metal or rap continuum the preference lies, when it is only labelled in general terms.

The research in this section demonstrated a higher preference for heavy metal music with psychiatric in and outpatients, delinquent youth, and self-identified stoners. The research by Took and Weiss was the only study that included rap music. Gold (1987) found that punk rock fans reported more family problems
than non-punk fans. The studies on delinquent behaviours found the youth were more linked regarding their common issues around delinquency than their music preference.

The means of determining music preference varied. Some studies directly asked subjects their preference of specific genres as was also done in the Music Questionnaire in this research. For example, Scheel and Westefeld (1991) listed five types of music – pop/mainstream, rap, heavy metal, alternative, and country music. Each type of music had a band that represented this type of music that they got from music store personnel. Gold (1987) gave a Screening Questionnaire to determine punk or non-punk music preference that was designed and validated by himself. Miranda and Claes (2004) asked their subjects to rate on a 5-point likert scale their preference for 23 music styles with examples. Out of these 23 music styles, the researchers screened out the 4 rap genres so that the subjects were not alerted of the purpose of the study. This study was unique in its approach to music preference.

Other studies asked in an open-ended manner the music preference of the adolescents. Tanner (1981) asked respondents to write down their favourite performer or band. He then coded it in similar categories presented in other research. Trostle (1986) reported that he asked a question that was designed to elicit the subjects’ contemporary music preference but was not listed in the article. Wass and Raup (1988-89) asked adolescents to list their five favourite
bands, albums, singles and performers. They defined HSSR (homicide, suicide, and Satanism) themes within the types of music listed. Different than all the other studies that investigated music preference, they examined themes in the favourite music listed. In order to do so they enlisted a group of experts ranging from disk jockeys to music librarians. They continued this way of examining music preference for the next two studies (Wass et al., 1989; Wass et al., 1991). Epstein and Pratto (1990) asked their subjects three questions about their favourite band, last CD purchased and last concert attended. Arnett (1991) determined preference for heavy metal music by posting a sign at a music store requesting metal fans. He also asked all subjects on a questionnaire to give their music preference and performers that illustrated that genre. Dent and colleagues (1992) asked students to complete an anonymous, self-report, open-ended questionnaire listing what musical groups they and their group of friends were most likely to listen to. These were then coded into eight musical styles with high inter-rater reliability. Klein and colleagues (1993) in a broad survey asked adolescents to name one of their favourite groups. This response was, in turn, coded into 12 categories (rock, soft rock, heavy metal, punk, rap, soul, reggae, country and gospel, jazz/blues, folk, and classical music). The used a recognized classification system as well as confirmation by local musicians of current music labels. Martin and colleagues (1993) asked each person to nominate their favourite style of music and name performers who exemplified the style. They also collapsed the heavy metal and rock music choices into one category and compared it to the pop music category. Stack and colleagues
(1994) based heavy metal preference on the subscription to a heavy metal magazine. Took and Weiss (1994) asked subjects to list their three favourite bands/performers and assigned a category only if the adolescents listed at least two out of three from the same music category. They did not state how the music category was determined.

Only one study in this area did not illustrate how music preference had been determined. King (1988) stated that 50 musicians and groups were given and they were then placed into categories, but how these categories were determined was not clear. Interestingly he created the following categories: hard rock/rap, country, heavy metal, and Hank Williams, Jr.

Another area of unease in this research is the lack of generalizability of the results to all adolescents. Many of the adolescents in the non-clinical studies that were highlighted tended to be from small groups within larger groups who preferred non-mainstream music. The troubled adolescents studied were predominately male so several researchers have wondered whether the question is about music preference and deviant behaviour or troubled male adolescents (Christenson & Peterson, 1998).

Another concern in the research may be the ease in which the subjects could deduce the intentions of the researchers and thus might affect how they respond. Another limitation is the issue around self-report questionnaires. One wonders
how accurate the responses were with perhaps over- and under-reporting issues depending on the group of adolescents used. One study asked for lifetime reporting on risky behaviours, which made it unclear if these behaviours were current, or in the past. Another limitation was the conclusions based on the answer to one question each. Martin and colleagues (1993) based their conclusions on problems in family closeness, suicidal thoughts and self-harm behaviour on only one question. The measures used in the following studies were created and validated by the researchers (Gold, 1987; Took & Weiss, 1994; Martin et al., 1993; Scheel, 1999).

Several researchers have speculated about the ability of other researchers to be neutral in their observations. King (1988) failed to mention in his research that he was a member of the PMRC (Epstein & Pratto, 1990) and Arnett (1996) stated how much he strongly disliked the heavy metal music that he studied by interviewing many adolescents he described as metalheads.

**Conclusions**

Two common themes that were highlighted by many researchers in their work with troubled and non-clinical adolescents were the difference between boys and girls who liked more deviant music and the reported family relations differences. Several researchers speculated about possible unknown third factors that may have impacted on the results that were not captured in the research.
This area of research highlighted a disturbing trend of finding girls who preferred more deviant music to be significantly more disturbed than their male counterparts. Although the girls consisted of significantly smaller groups than the males who preferred deviant music, they were found to be more extreme than their male counterparts. They were significantly different than other girls who preferred more mainstream music.

Arnett (1991) found girls who liked heavy metal reported lower self-esteem than girls who did not like heavy metal. Klein and colleagues (1993) found 18% of white girls who rated in the high-risk behaviour group preferred heavy metal groups, compared with only 5% of low-risk white girls. Martin et al. (1993) concluded that the small minority of females who preferred rock/metal music appeared more disturbed as a group, claiming more suicidal thoughts and acts, scoring as significantly more depressed and delinquent, and reporting more difficult family relations than their male counterparts and other girls. Scheel and Westefeld (1999) found suicide was a greater risk for both male and female heavy metal music fans. Female fans however reported thinking about killing themselves significantly more than male fans. Similarly, Lacourse and colleagues (2001) found that girls who reported liking heavy metal music reported more feelings of alienation and seemed to be at a higher risk for suicide. However, the two research studies from the Netherlands did not follow this trend. Mulder et al. (2007) did not find girls with preferred heavy metal music to have elevated problem levels. Selfhout et al. (2008) found a stronger effect on
externalizing problems for boys than girls on who liked heavy metal music. Mulder suggested cultural differences for Dutch youth with Goth music (sub-genre of heavy metal music) being popular in the Netherlands. Scheel and Westefeld suggested that since adolescents who are at risk of suicide are often difficult to discern, music preference might be one of the starting points to explore for some vulnerable youth whether they are at risk for suicide especially for female adolescents. However, they were clear that music preference might be one of many factors involved in suicide risk for youth.

The adolescents who reported preferring more deviant music made the following observations that were significant about family relationships than non-fans. Three studies reported “not close” family relationships (Gold, 1987; Martin et al., 1993; Stack et al., 1994). Three studies reported parents as either divorced or living separately (Arnett, 1991; Martin et al., 1993; Wass et al., 1989). A large group of studies reported that fans of heavy metal, punk, or rap music reported difficult relationships with parents (Arnett, 1991, 1996; Gold, 1987; Lester, 1987; Litman & Farberow, 1994; Martin et al., 1993). Scheel and Westefeld (1999) found that heavy metal fans scored significantly lower on the Responsibility to Family, one of the six subscales of the Reason for Living Inventory, and one of the subscales that addressed reasons to live. The research by Wass and colleagues (1991) was an exception in the research as it found that parents’ martial status did not predict whether a juvenile offender was an HSSR fan as both males and females from intact and broken homes were fans.
Music and Depression

Much has been written about the relationship between music and the emotional state of the listener. Of particular interest for this research is the relationship between music and depression. Miranda and Claes (2007) noted that music listening and depressive symptoms increase during adolescence, and they wondered about the lack of research exploring whether these two aspects of adolescent life were somehow linked. Nick Hornby mused rather humorously in his book *High Fidelity*, what comes first: the music or the misery? He declared that people worry about violent video games or guns, yet no one worries about the thousands of songs adolescents listen to about heartbreak, pain, misery, and loss. There are only a few research studies that have investigated the relationship between depression and popular music. Several literary authors (for example, William Styron and Wendy Lesser) have described their own unique experiences with music and depression, and their observations will be highlighted.

**Theoretical**

Music is unique among the arts in that it is completely abstract and can be profoundly emotional, as it has the unique power to express states of feelings (Sacks, 2007). Storr (1992) suggested that a listener’s response to a particular piece of music often has more to do with the state of mind of the listener than the qualities of the music. Music is also a means of recovering personal feelings
from which the listener has become alienated (Sacks, 2007; Storr, 1992). As several authors illustrate below, music plays a unique role in feelings of loss and mourning, and it often catches the listener by surprise.

Styron (1990) in his memoir about his struggles with depression described how, when he was feeling suicidal, music suddenly re-awakened his appreciation of his home and family. He outlined vividly how “music pierced my heart like a dagger” while listening to Brahms’s Alto Rhapsody (p. 66). He later noted that his mother, who died when he was 13 years old, used to sing the Alto Rhapsody, and wondered retrospectively whether his depression had been related to his incomplete mourning of her death. For Styron, music played the role of giving him hope and reminded him of the good things in his life, when he felt only depressed and suicidal.

Stein (2004) described the intrapsychic functions of music in the mourning process, both as a “unique response to trauma and as a special aesthetic expression of a range of affects connected with grief” (p. 784). Stein became interested in the role of music for himself and his patients in response to the September 11 attack on the World Trade Centre. Dr. Stein and his patients were living in New York City at the time. Dr. Stein had been a professional pianist before his analytic training. It was several months before Stein was able to play and enjoy music following his listening to Bach’s Goldberg Variations (Stein, 2004).
Stein gave examples from popular music that he believes illustrate the use of music in the context of the mourning process. As examples, he depicted the songs of Kurt Cobain with Nirvana “as veritable homilies of suicidal ideation” (p. 795). He also commented that some rock music could play an important role for adolescents in helping them give up previously held internal images of themselves as children. Furthermore, he described how rock music might provide a reflection as well as an affirmation of an adolescent’s experience of the world, which helps to lessen feelings of alienation and isolation. Thus, for adolescents, music can contain some of the overwhelming affects associated with this age and can provide a consoling function similar to that of more typical mourning music, as described above.

The next two writers described experiences of hearing a piece of music that infiltrated their numb feelings related to a significant loss in their life. An American writer described her experience with music in response to her friend Lenny’s death. Lesser (2007) found that while listening to Brahams’s Requiem something warmed up inside her and she found herself able to feel again. She had not realized until after the concert how affected she had been by her friend’s death, in particular, how emotionally numb she had been. Similarly Sacks (2007) expressed how music affected him following the news of the death of his mother. He stated that despite feeling dead inside, he was able to go to work and present as normal. He described his emotional state as frozen in response to his
mother’s death, which was released several weeks later due to an accidental hearing of the music of Zelenka’s Lamentations emitting from a basement window as he walked by. He then found himself able to allow his emotions to run freely and to no longer be blocked.

Several authors have suggested possible reasons for the unique relationship between music and depression. Ashbach (1994) stated that many children and adults have the regressive tendency to blur the real and imaginary. He believed, however, that for most children and adults, this blurring is less likely if they have an integrated inner world as well as a stable personal life. Furthermore, the competent child uses the media for gathering information or for accessing entertainment. According to Ashbach (1994) if relationships within the family are absent or lacking, a child is much more likely to escape into the world of the media or daydreams in order to avoid the painful and depressive emotions associated with his or her life. Levitin (2008) wrote about the role of “comforting music.” He described how a sad song helps the listener feel less alone with their sadness by having their experience understood. He also described how happy music may make the depressed listener more distressed as it reminds them of how alone they are. He suggested that comforting music was particularly important for many adolescents.

This thesis document cannot explore all the different emotional responses to music but has highlighted several well-known examples of writers illustrating how
music had pierced through their emotional numbness following a loss in their lives or gave them hope when they felt overwhelmed with depression. Music seemed to be able to touch them in a unique way more than words and even helped them understand how removed they were from their emotional state of depression.

*Popular Music and Depression*

There are three studies that directly measured the level of depression in the adolescents surveyed in their research (Martin et al., 1993; Miranda & Claes, 2007, 2008). The three studies were conducted at the adolescents' high schools and were based on self-report paper and pencil tests. In the first study Martin and colleagues measured depression using the Achenbach Youth Self-Report Depression scale and the next two studies by Miranda and Claes (2007, 2008) used the shortened version of the Beck Depression Inventory (“BDI”). Miranda and Claes (2007) used the 13-item BDI and Miranda and Claes (2008) used the 21-item BDI. All of the studies also examined the music preferences of the adolescents as well as other aspects of their lives, including whether they had suicidal thoughts and demonstrated destructive/suicidal behaviour, delinquency, drug and alcohol use (Martin et al., 1993); drug use, state anxiety, academic problems (Miranda & Claes, 2007), and personality traits (Miranda & Claes, 2008). It is noteworthy that music preference was determined in different ways for all of the studies. Martin and colleagues (1993) asked the adolescents to write down their favourite musical style and to give two examples of this genre.
Martin and colleagues grouped rock/metal music together. Miranda and Claes (2007) started with 23 musical styles and factored the choices down to 5 – metal, soul, electronic, pop and classical. Their soul category included hip hop, rap, R&B and reggae. Miranda and Claes (2008) used 38 musical styles and found the same 5 categories as cited above – metal, soul, electronic, pop, and classical. The age groups were the following: in the research by Martin and colleagues (1993), it is unclear what the age range was, but the mean age was 14.76 years; Miranda and Claes's (2007) subjects were in the age range of 14-18 years and Miranda and Claes's (2008) subjects ranged from 15 to 18 years.

Martin and colleagues (1993) found in a study of over 200 Australian high school students that students who preferred heavy metal/hard rock music reported higher levels of depression, suicidal thoughts, and inflicted self-harm more frequently. However, almost 60% of the female and 20% of the male heavy metal fans reported having deliberately tried to kill or hurt themselves during the last six months compared to 14% of females and 8% males who preferred pop music. Martin and his colleagues concluded that the female heavy rock fans were more at risk as a group but also noted that this group of female fans was a relatively small number.

Miranda and Claes (2007) investigated the relationship between music preferences and level of depression for a large group of 329 French Canadian adolescents. They also asked the adolescents about their drug use, state
anxiety, and academic problems. Preference for heavy metal music was linked to higher depression levels for adolescent girls, whereas preferences for soul music and pop music were linked to lower depression levels. Soul music in this study was defined as hip hop, rap, R&B and reggae. However, for adolescent boys a link was not found between music preference and depression like it was for adolescent girls. Miranda and Claes speculated that these results could be understood in terms of gender differences. They wondered if girls were more passive and thus listened to music when depressed, whereas boys were likely to be more active and play an instrument when depressed.

In a six-month longitudinal study conducted by the same researchers as above (Miranda & Claes, 2008), 311 French Canadian high school students were investigated on personality traits as well as music preference and depression levels. The researchers investigated whether personality traits or depression levels predicted music preferences and whether listening to music was protective with respect to depression. It was found that soul music listening was a predictor of lower depression levels among adolescent girls. The findings related to personality traits will be described in the next section of this chapter. Miranda and Claes concluded that music listening for adolescent girls to soul music might have a protective function for depression and that girls present greater emotional regulation with music listening than boys.
Critiques of the Research

Few studies have investigated the link between depression and music preference/experience for adolescents. The three studies described above were difficult to compare for several reasons. Martin and his colleagues suggested that their study be replicated with a more conventional measure of depression. Miranda and Claes (2007) used the 13-item BDI and in their 2008 study used the 21-item BDI. As well, music preference was defined differently in all three studies. For example, Martin and his colleague’s grouped heavy metal/hard rock music together. Miranda and Claes in both studies used the category soul music that placed together rap, hip hop, R&B, and reggae, and they emphasized the positive nature of rap. Other researchers, for example, North and Hargreaves (2006) have defined hard rock, hip hop/rap, or punk as “problem music.” All of this research was based on self-report data, which is subject to social desirability and memory bias. The three studies were conducted at the school of the adolescents, which may have also affected their responses.

In the first two studies, adolescent girls who preferred heavy metal or hard rock music were found to be significantly more depressed than adolescent girls who preferred pop music. However also of concern in both of these studies, this small subgroup of girls displayed other concerning issues such as suicidal ideation (Martin et al., 1993; Miranda & Claes, 2007); drug taking and family dysfunction (Martin et al., 1993) as well as pessimism, self-dislike, sense of worthlessness,
and work inhibition (Miranda & Claes, 2007). However, the most current study by Miranda and Claes (2008) did not find a link between metal music and depression for girls but did find a link between girls' preference for soul music and lower depression after six months. Miranda and Claes did note that also measuring personality traits might have moderated some of the effect of metal music and depression for girls.

The results of these studies raise more questions than answers given the correlational nature of the studies. For a small subgroup of adolescent girls, is their preference for metal music demonstrating vulnerability or a temporary rebellious choice as it appeared from the longitudinal study of Miranda and Claes (2008) when they did not appear to be fans of metal music six months later? Why do adolescent boys who prefer metal music not appear depressed? Why would metal music reflect the girls' internal state by the music's focus on suicide and despair but not for boys? Martin and his colleagues (1993) postulated that girls' preference for heavy metal music was an indicator of vulnerability. However Miranda and Claes (2007, 2008) understood the results as reflecting the research on girls and depression especially in regard to girls have been found to ruminate more.

Conclusions

The relationship between music and depression is complex for all individuals of all ages. As Sacks (2007) noted one of the fascinating paradoxes of this
relationship is that although “music makes one experience pain and grief more intensely, it brings solace and consolation at the same time” (p. 301).

Additionally, music can function to externalize an overwhelming or incomprehensible internal state. Music can express feelings that otherwise seem inexpressive as well as express what spoken or written language cannot, “in essence speaking for the self obliterated or muted by despair or symbolizing experiences and affects otherwise too intense or overwhelming to express directly” (Stein, 2004, p. 807). The use of music for depressed adolescents is of concern, but it is unclear given the current research whether their preference for heavy metal/hard rock music makes them more depressed or is actually cathartic for some adolescents (Arnett, 1991). It does however appear to be an important area to explore further given the findings for adolescent girls.

**Personality and Music Experience**

A number of studies have explored the relationship between personality and music preference. It is not clear whether an adolescent’s music preferences reflect his or her personality or listening to music helps shape his or her personality or a combination of both (Hansen & Hansen, 1991). Presently there are no studies using the Washington University Sentence Completion Test (“WUSCT”), which measures ego development level and is a measure of personality with music preference. However, some of the personality traits
described below do reflect aspects similar to the theoretical underpinnings of the WUSCT and will be linked accordingly at the end of this section.

There are two main measures of personality in this area of research the Eysenck Personality Inventory and the Big Five NEO Personality Inventory. Both personality measures have reported extensive indices of validity and reliability in their respective manuals (Costa & McCrae, 1992; Eysenck & Eysenck, 1991). A number of studies have also focused on negative personality traits such as sensation-seeking (Dollinger, 1993; Glasgow, Cartier & Wilson, 1985; Little & Zuckerman, 1986; McNamara & Ballard, 1999; Rawlings, Vidal & Furnham, 2000) and rebelliousness (Bleich, Zillmann & Weaver, 1991; Dillman-Carpentier, Knobloch & Zillman, 2003; Hansen & Hansen, 1991; Robinson, Weaver, Zillman, 1996).

Other personality measures utilized are the Personality Research Form, Keston Personality Inventory, Tellegen Absorption Scale, Psychopathic Deviate (Pd) scale of the Minnesota Multiphasic Personality Inventory (MMPI-2), and the Millon Adolescent Personality Inventory. Renfrow and Gosling (2003) were the only researchers that utilized five different measures of personality and included the Big Five, the Personality Research Form, the Social Dominance Orientation Scale, the Brief Loquaciousness, and Interpersonal Responsiveness Test and the Rosenberg Self-Esteem Scale. Kopacz (2005) used the 16 PF Questionnaire (translated into Polish).
Music preference was determined in a variety of ways. Many studies have used the Music Preference Scale (MPS) (Dollinger, 1993; Little & Zuckerman, 1985; Rawlings & Ciancarelli, 1997; Rawlings et al., 1995). Another study by Delsing, Ter Bogt, Engels and Meeus (2008) utilized the Music Preferences Questionnaire. Other measures of music preference included rating music pieces after listening to them (Glasgow, Carter & Wilson, 1985; McCown et al., 1997; McNamara & Ballard, 1999; Neville, 1985; Rhodes, David, Combs, 1988). Music preference has also been measured through surveys (Daoussis & McKelvie, 1986; Hansen & Hansen, 1991; Keston & Pinto, 1955; Kopacz, 2005; Payne, 1967; Schwartz & Fouts, 2003; Weaver, 1991) as well as by the factor analysis of multiple music genres (Delsing et al., 2008; Miranda & Claes, 2008; Renfrow & Gosling, 2003).

The type of music studied is also of interest in the research. Some earlier studies (Glasgow, Carter & Wilson, 1985; Keston & Pinto, 1955; Neville, 1985; Payne, 1967) focused predominately on classical music, whereas other studies have examined a wide range of music styles (Daoussis & McKelvie, 1986; Dollinger, 1993; Little & Zuckerman, 1986; McCown et al., 1997; Rawlings et al., 1995; Rhodes et al., 1988; Wheeler, 1985). One study focused on students who preferred punk or heavy metal music only (Hansen & Hansen, 1991). The remaining studies investigated unique aspects of music preference and included light or dark music (Schwartz & Fouts, 2003), arousing or non-arousing music
(McNamara et al, 1999), and soft/non-rebellious or hard/rebellious music videos (Robinson et al., 1996). Rentfrow and Gosling (2003) found independent music dimensions which included the following: a) Reflective and Complex (defined by genres classical music, jazz); b) Intense and Rebelliousness (defined by genres heavy metal, rock), c) Upbeat and Conventional (defined by genres country, religious, pop music), and d) Energetic and Rhythmic (defined by genres rap/hip hop; soul/funk). Desling and colleagues also found four music preference dimensions: Rock (heavy metal, hard rock); Elite (classical music, gospel); Urban (hip hop/rap, soul/R&B); Pop/Dance (Trance/techno, Top 40/charts), which they linked as similar to the ones described above by Rentfrow and Gosling (2003).

Most of the studies presented in this section involve participants who were undergraduate university students. Adolescent subjects were employed in the following studies: Desling et al., 2008; Miranda & Claes, 2008; Neville, 1985; and Schwartz & Fouts, 2003. However, Rawlings and colleagues (1995) included both secondary and university students. Weaver (1991) was the only researcher to use male subjects exclusively.

Many of the studies consisted of sample sizes fewer than 100 students (Daoussis & McKelvie, 1986; Dillman-Carpentier et al., 2003; Dollinger, 1993; Glasgow et al., 1985; Hansen & Hansen, 1991; Little & Zuckerman, 1986; McNamara, Ballard, 1999; Neville, 1985; Rawlings et al., 1995; Rhodes et al., 1988).
Another group of studies were larger, comprising less than 200 students (Keston & Pinto, 1955; Kopacz, 2005; McCown et al., 1997; North et al., 2005; Payne, 1967; Rawlings et al., 1995; Rawlings et al., 1997; Robson, 1996; Schwartz & Fouts, 2003; Weisskirch & Murphy, 2004). The research by Miranda and Claes (2008) involved 311 high school students. Two studies utilized large groups of participants with over 1,000 students (Desling et al., 2008; Rentfrow & Gosling, 2003). Miranda and Claes (2003) followed up their subjects in six months time and the research of Desling and colleagues followed their subjects in one-year intervals for a total of three years.

_Eysenck Personality Inventory (“EPI”)_

Seven studies utilized the Eysenck Personality Inventory in conjunction with music preference (Daoussis & McKelvie, 1985; McCown, Keiser, Mulhearn & Williamson, 1997; Neville, 1985; North, Desborough, Skarstein (2005); Payne, 1967; Rawlings et al., 1995; Robinson, Weaver, Zillman, 1996; Weaver, 1991). The EPI identifies three major dimensions of personality: Extraversion; Neuroticism, and Psychoticism. It also includes a Social Desirability (Lie) scale. According to North and colleagues, the Psychoticism dimension is the most frequently investigated index of deviance (North et al., 2005).

_Big Five NEO Personality Inventory (“Big Five”)_

Six studies (most of them recent studies) used the Big Five (Chamorro-Premuzic & Furnham, 2007; Delsing et al., 2008; Dollinger, 1993; Miranda & Claes, 2008;
Rawlings & Ciancarelli, 1997; Renfrow & Gosling, 2003) as the personality measure. This inventory identifies five orthogonal personality dimensions including Extraversion and Neuroticism (similar to the EPI) as well as Agreeableness, Conscientiousness, and Openness to Experience. Each of the five main factors (or domains) is divided into six subscales (or facets) (Rawlings et al., 1997). From this personality measure, Extraversion and Openness to Experience are the dimensions that are most strongly related to music preferences (Rawlings & Ciancarelli, 1997).

**Highlights of the Research**

The dimensions of Extraversion/Introversion and Neuroticism are shared with the EPI and the Big Five. Eysenck’s Psychoticism trait corresponds to the traits from the Big Five of Conscientiousness and Agreeableness. Eysenck did not address the Openness to Experience trait. The results of these two dimensions (Extraversion and Neuroticism) will be presented together as well as relevant highlights from the other dimensions.

**Extraversion/Introversion**

According to Kemp (1997) one dimension that unites all personality theories is the introversion/extroversion dimension. Extraversion characterizes social, assertive, venturesome, warm, joyful, and carefree persons (Kemp, 1987; McCrae & Costa, 1980). They tend to enjoy positive events especially social events (Weaver, 1991). Extraversion was correlated with music preference in
five studies. Extraverts were found to prefer hard rock music (Daoussis & McKelvie, 1986; McCown et al., 1997), jazz, country, new age, and pop music (Dollinger, 1993; Rawlings & Ciancarelli, 1995, 1997; Rentfrow & Gosling, 2003), rap/hip hop, soul/funk (Rentfrow & Gosling, 2003) and Pink Floyd (Neville, 1985). Kopacz (2005) found that extraverts preferred faster tempos and more variety in the melodic themes. Delsing and colleagues found a preference for Elite music (classical and jazz) was negatively related to Extraversion for the 12-15-year-old adolescents but was positively related to Extraversion for the older group (16-19-year-old-adolescents). Delsing and colleagues also found that Extraversion was related to preference for both Urban and Pop/Dance. They concluded that Extraverts prefer music that allows them to socialize with peers and to have fun, which they believed fit the Urban (hip hop/R&B) and Pop/Dance (Top 40/charts) categories. These music styles are the most popular at clubs or parties for this age group.

Neuroticism

Neuroticism characterizes anxious, tense, shy, and possibly depressed persons. Individuals who score high on Neuroticism tend to experience negative emotions, hostility, and inappropriate emotional expression (Weaver, 1991). Payne (1967) found those adults who scored high on this dimension liked classical/romantic music whereas Weaver (1991) found that Neuroticism was related to liking for downbeat music. Miranda and Claes (2008) found that those adolescent girls who scored high on Neuroticism and on preference for Soul music were less
likely to be depressed six months later, which made them wonder about the possible protective function of Soul music for adolescent girls. Soul music in their study was defined by the genres hip hop and R&B. This scale did not predict preference for heavy metal/punk (Delsing et al., 2008; Miranda & Claes, 2008; Rentfrow & Gosling, 2003) as these researchers had anticipated.

**Psychoticism**

Psychoticism was a dimension that was only obtained from the EPI. Individuals rating high on the Psychoticism dimension are characterized as being egocentric, aggressive, hostile, impulsive, shallow, and antisocial. Robinson et al. (1996) found individuals high on Psychoticism liked hard/rebellious rock videos. Rawlings et al. (1995) found high Psychoticism correlated with preference for hard rock/heavy metal; low Psychoticism with easy listening. McCown et al. (1997) found that males and females who rated high on this scale preferred music with an elevated bass (like heavy metal). North and colleagues (2005) found a positive relationship between liking for problem music and rating high on Psychoticism. It appears that those individuals who rated high on the Psychoticism scale were more likely to prefer problem and rebellious music.

**Openness to Experience**

Openness to Experience relates to the independent, curious, creative type of person who has a “willingness to take in different facets of experience” (McCrae & Costa, 1980, p. 1180). This dimension is only measured on the Big Five. This
dimension predicted preferences for metal and classical music in adolescent girls and boys yet also lesser preference for soul music in adolescent girls and more preference for electronic music for adolescent boys (Miranda & Claes, 2008). Students with a higher degree of Openness displayed the following music preferences – new age, classical, jazz, reggae, folk-ethnic, soul/rhythm, and blues (Dollinger, 1993; Rentfrow & Gosling, 2003); classical, new age (Rentfrow & Gosling, 2003; Rhodes et al., 1988); soft rock, folk-ethnic, hard rock, jazz, electronic music (Rawlings & Ciancarelli, 1997). Kopacz (2005) found that people who rated higher on the Openness to Experience dimension preferred listening to a greater variety of music. Openness was related to a preference for eclectism in boys and girls (Delsing et al., 2008; Dollinger, 1993; Miranda & Claes, 2008; Rawlings & Cincarelli, 1997). It has also been related to heavy metal (Rentfrow & Gosling, 2003); unconventional music and preference for diverse music styles (Dollinger, 1993; Rawlings et al., 1997). It does appear that individuals that rated high on the Openness to Experience scale reported preferring a greater variety of music and many different genres with a dislike of popular music.

Negative Traits

Many studies have explored the personality trait of "sensation-seeking" and its relationship to music preference. Sensation-seeking was described as the trait “defined by the need for varied, novel, and complex experiences and the willingness to take physical and social risks for the sake of obtaining those
Many studies have found a direct association between sensation-seeking and enjoying heavy metal or hard rock music (Arnett, 1991, 1992; Little & Zuckerman, 1986; McNamara & Ballard, 1999; Rawlings et al., 2000; Weisskirch & Murphy, 2004). Weisskirch and Murphy (2004) found that in addition to heavy metal music, the college students in their study, who scored high on sensation-seeking liked punk and reggae music. Little and Zuckerman (1986) found that high sensation-seekers were more likely to get emotionally involved with music and were also less likely to use music as background to other activities. It appears that those individuals who rate high on the sensation-seeking scales like music that is outside the norm of other students and thereby can be thought of as novel or unique.

Rebelliousness

Hansen and Hansen (1991) found that punk rock music fans were less accepting of authority than non-fans. They also found that heavy metal fans scored lower on respect for woman and higher on Machiavellianism and machismo. Robinson, Weaver, Zillman (1996) found that those undergraduates who scored high on Psychoticism and Reactive Rebelliousness enjoyed rebellious music videos more than did those participants who scored low on these factors. Lastly, Dillman-Carpentier and colleagues (2003) rated a small group of 56 undergraduate students on their level of trait rebelliousness. They then placed the respondents in a private situation where they could control how much they listened to either socially deviant or non-defiant music. Dillman-Carpentier and colleagues found
that those students higher on the rebellious trait spent significantly more time listening to the defiant rap and rock songs than the students in their study who did not rate high on rebelliousness.

**Dimensions Linked with Ego Development Level**

Openness to Experience derived from the Big Five was correlated with higher ego development level (McCrae & Costa, 1980). Specifically McCrae and Costa found that overall Openness to Experience was significantly related to high level of ego development (as well as seven out of the 10 scales of Openness to Experience including aesthetics, actions, ideas, values, liberal thinking, and non-traditional family ideology). However, this study utilized a moderate number (240 adult males), which makes its generalizability to this thesis document problematic but is suggestive of a link for adolescent boys and girls. I am also proposing that the Psychoticism scale is similar in many ways to the Preconformist level of ego development with its characteristics of egocentricism, aggression, hostility, callousness, and impulsivity. The research described in more detail below by Schwartz and Fouts (2003) is important for this thesis, because the personality dimensions can be linked to ego development levels, and they also emphasize that developmental issues are also related to music preference.

**Research Studies**

The groundbreaking research of Renfrow and Gosling (2003) will be highlighted as well as several recent research studies involving Canadian adolescents.
(Miranda & Claes, 2008; Schwartz & Fouts, 2003). The research of Delsing et al. (2008) replicated the research by Rentfrow and Gosling (2003), except they used Dutch adolescents instead of American college students. Also, in contrast to Rentfrow and Gosling (2003), Delsing and colleagues followed the adolescents in their study for a three-year interval and tested them yearly in order to explore the stability of music preferences and its relationship to personality traits.

Rentfrow and Gosling (2003) first determined the major dimensions of music preferences by means of exploratory and confirmatory factor analysis and then examined the associations with the well-established Big Five personality factors. The subjects were a moderate number of 206 undergraduate students. The four dimensions that were found were Reflective and Complex dimension (defined by genres jazz, classical and blues); Intense and Rebellious dimension, which was defined by rock, alternative, and heavy metal music; the Upbeat and Conventional dimension, defined by country, soundtrack, pop music. The last dimension was Energetic and Rhythmic dimension, which was defined by rap/hip hop, soul/funk music. Rentfrew and Gosling found both the Reflective and Complex and the Intense and Rebellious dimensions to be positively related to Openness to Experience. The Upbeat and Conventional dimension was positively related to Extraversion, Agreeableness and Conscientiousness and negatively to Openness to Experience. The Energetic and Rhythmic dimension was positively related to Extraversion and Agreeableness.
Schwartz and Fouts (2003) examined the personality characteristics derived from the Million Personality Inventory and developmental issues of three groups of adolescents. They chose three groups with the following preferences: 1) light qualities of music (pop, dance, teen pop) 2) heavy qualities of music (heavy metal, hard rock music) and 3) eclectic preferences for music qualities (no strong preference for either one or two). They found that adolescents, who preferred heavy music had lower self-esteem, were anti-conformist, questioned authority, and lacked a stable sense of identity. Adolescents who preferred light music were described as more likely to be preoccupied with doing the right thing while keeping their emotions in check, and likely to have developmental concerns about their sexuality, and relationships with peers. The last group of adolescents who preferred eclectic music appeared to have less difficultly negotiating their adolescence. They were not experiencing significant issues regarding self-concept, dealing with authority or worrying about their sexuality and peer relationships.

Many of the issues described in the research by Schwartz and Fouts (2003) are significant to this thesis document, in particular, how music preference relates to adolescent developmental issues, specifically the differences between the groups who preferred light, heavy or eclectic music. Those adolescents, for example who preferred heavy music had lower self-esteem, more anti-conformist, questioned authority, lacked a stable sense of identity (which is similar to the Preconformist level of ego development). Adolescents who preferred light music
were described as more likely to be preoccupied with doing the right thing while keeping their emotions in check (which is similar to the Conformist level of ego development), likely to have developmental concerns about their sexuality, and relationships with peers. The last group of adolescents who preferred eclectic music appeared to have less difficulty negotiating their adolescence. They were not experiencing significant issues regarding self-concept, dealing with authority or worrying about their sexuality and peer relationships. This latter group appeared to be at a higher level of ego development probably above the Conformist level. Thus, Schwartz and Fouts concluded that they had found considerable support for the hypothesis that the adolescents in their study preferred listening to music that reflected the developmental issues that they were dealing with.

Delsing and colleagues (2008) replicated the landmark research done by Rentfrow and Gosling (2003). They employed a similar factor analytic approach to music preferences and used the same personality dimensions. They found similar music preference dimensions and labelled the genres Rock, Elite, Urban, and Pop/Dance. There were several differences including that the genres of gospel and trance/techno music loaded on different dimensions, but the researchers considered these minor differences. They found relatively stable music preferences over a three-year period. Specifically, they found that adolescents who liked Rock tended to be relatively low on Conscientiousness and relatively high on Openness to Experience. Adolescents who enjoyed Elite
music tended to be relatively high on Agreeableness, Conscientiousness and Openness to Experience and relatively low on Emotional Stability. Adolescents who enjoyed Urban tended to be relatively high on Extraversion and Agreeableness as are adolescents who enjoy Pop/Dance. These patterns were very similar to those reported by Rentfrow and Gosling (2003) with college students. However, they did find that in their study that preference for Elite music was negatively related to Emotional Stability, whereas Rentfrow and Gosling did not find substantial associations between this trait and any of the four music dimensions. Delsing and colleagues suggested that liking Elite music in college may be very different than liking it as an adolescent, as it may be seen as more unusual in a younger individual. Consistent with Rentfrow and Gosling’s study, they found that adolescents who preferred Rock music did not appear to display signs of Neuroticism or Disagreeableness. They also had overall lower correlations which may also be related to age as personality factors may be more influential for older students.

Miranda and Claes (2008) conducted a six-month longitudinal study with a moderate group of 311 French Canadian adolescents. They explored the relationship between the Big Five personality traits, music preferences, and depression. They found that Extraversion was related to Soul (hip hop/rap, R&B). They also found that Openness to Experience predicted higher preference for eclectic music (including Classical music and Metal). Pop music preferences did not predict depression, only Soul music was considered a potential protective
factor. Results revealed that the predictive link between Neuroticism and depression levels were buffered by high preferences for Soul music in girls, which suggests that Soul music may act as a potential protective factor against depression in adolescent girls.

Preference for Problem Music

Preference for problem music was significantly related to many aspects of personality, which are of particular interest to adolescents. Several researchers found strong correlations of problem music preference and excitement-seeking (Dollinger, 1993; Little & Zuckerman, 1986; McNamara & Ballard, 1999; Rawlings & Ciancarelli, 1997; Rentfrow & Gosling, 2003; Weisskirch et al., 2004), rebelliousness and psychoticism (Dillman-Carpentier et al., 2003; Hansen & Hansen, 1991; McCown et al., 1997; North & Hargreaves, 2005; Robinson et al., 1996), and arousal level (McNamara & Ballard, 1999). Schwartz and Fouts (2003) found that adolescents who preferred heavy music were significantly more tough-minded, assertive, non-conforming, lower self-esteem, questioned authority, and lacked a stable sense of identity than adolescents who preferred light music (pop music).

Critique of the Research

In this area of research, there are two important limitations. The majority of research was conducted with university students in classrooms or research labs. There were only five studies that employed adolescent subjects. Secondly, there
were many different measures of personality and how preference was determined highly varied making the comparability of these studies challenging. For example, several recent studies used broader genres to represent similar music styles such as hip hop and R&B together (i.e., Delsing et al., 2008; Miranda & Claes, 2008; Rentfrow & Gosling, 2003). As described above, the personality measures were varied and except for several overlapping dimensions difficult to compare in a meaningful way.

**Ego Development – Personality Measure**

Loevinger's conception of ego development assumes that each person has a frame of reference through which he or she filters and structures experiences (Westenberg & Gjerde, 1999). Loevinger (1993) stated that she seldom used the term “ego”, preferring to use the phrase “level of ego development.” She also delineated that there was no similarity between her use of ego and the way ego is defined in psychoanalytic theory (Loevinger, 1976; Westen, 1998). Loevinger outlined the ego as the master trait of personality on which identity is based and determined the ego’s task as finding coherent meaning in experience (Loevinger & Wessler, 1970). The dimension of ego development consists of three interrelated facets – impulse control, interpersonal style, and conscious preoccupations. Personality growth is portrayed as a series of developmental advances in these three facets. Ego development level is conceived as a relatively stable structure by adulthood.
Other researchers have focused on ego development as a measure of personality based on psychosocial development and maturity (Isberg, Hauser, Jacobson, Powers, Noam, Weiss-Perry & Follansbee, 1989) and self and identity (Newman, 2005). Hauser, Gerber and Allen (1998) postulated four key motifs in ego development – “psychological mindedness, integration, and coherence of perceptions and conceptions, active mastery/agency, and interpersonal relationships” (p. 207). Hauser and colleagues linked these four motifs to adult attachment representations. Noam (1998) described his redefinition of ego development as a theory of the self. He linked ego development levels to the progression of the self from a self that is focused on itself (Preconformist level) to a self that identifies with others (Conformist level) to a self that is based on one’s own internal beliefs (Postconformist). Similarly, Newman (2005) delineated ego development as being a “mechanism to maintain coherence of the self and one’s identity” (p. 734). A more recent definition of ego development suggested that this personality measure addressed a variety of issues “including how respondents perceive and respond to personal relationships, authority, frustration, and everyday issues” (Westenberg, Hauser, Cohn, 2004, p. 596).

**Measuring Ego Development Level**

The Washington University Sentence Completion Test of Ego Development (“WUSCT”) (Loevinger, 1985, Loevinger & Wessler, 1970; Wessler & Redmore, 1970) has been used in over 300 studies examining a variety of research topics (Westberg & Gjerde, 1998). The WUSCT was first published in 1970 (Loevinger
The WUSCT was revised again eleven years later (Hy & Loevinger, 1996). It is a semi projective measure composed of 36 incomplete sentences (See Appendix “C”). The respondents are requested to complete each stem by the test administrator, with no additional instructions usually given. Although the WUSCT was originally developed for girls and women, separate forms were soon developed for boys and men. The only differences between these forms are the appropriate pronoun for each gender (Manners & Durkin, 2001). There are nine stages of development from E2 to E8. E1 Presocial stage is part of the theoretical conceptualization but not part of the WUSCT scoring as it is described as applying to the newborn preverbal infant and thereby inaccessible to assessment. Recently, Westenberg and colleagues created the Sentence Completion Test for Youth (“SCT-Y”) for children and adolescents (Westenberg, Jonckheer, Treffers & Drewes, 1998). Since the research for this thesis was done prior to this date, the original WUSCT was utilized in this research.
### Table 1

**Loevinger's Framework for Ego Development**

Some Characteristics of Ego Development Level

<table>
<thead>
<tr>
<th>Level</th>
<th>Code</th>
<th>Impulse Control</th>
<th>Interpersonal Style</th>
<th>Conscious Preoccupations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Impulsive</td>
<td>E2</td>
<td>Impulsive</td>
<td>Egocentric, dependent</td>
<td>Bodily feelings</td>
</tr>
<tr>
<td>Self-Protective</td>
<td>E3</td>
<td>Opportunistic</td>
<td>Manipulative, wary</td>
<td>&quot;Trouble,&quot; control</td>
</tr>
<tr>
<td>Conformist</td>
<td>E4</td>
<td>Respect for rules</td>
<td>Cooperative, loyal</td>
<td>Appearances, behavior</td>
</tr>
<tr>
<td>Self-Aware</td>
<td>E5</td>
<td>Exceptions allowable</td>
<td>Helpful, self-aware</td>
<td>Feelings, problems, adjustment</td>
</tr>
<tr>
<td>Conscientious</td>
<td>E6</td>
<td>Self-evaluated</td>
<td>Intense, responsible</td>
<td>Motives, traits, achievements</td>
</tr>
<tr>
<td>Individualistic</td>
<td>E7</td>
<td>Tolerant</td>
<td>Mutual</td>
<td>Individuality, development,</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>roles</td>
</tr>
<tr>
<td>Autonomous</td>
<td>E8</td>
<td>Coping with Conflict</td>
<td>Interdependent</td>
<td>Self-fulfillment, psychological</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>causation</td>
</tr>
<tr>
<td>Integrated</td>
<td>E9</td>
<td></td>
<td>Cherishing individuality</td>
<td>Identity</td>
</tr>
</tbody>
</table>


The responses reveal a person's characteristic mode of reasoning about his or her actions, motivations and personal relationships. Most research has grouped the stages into three levels – Preconformist, Conformist, and Postconformist.

The Preconformist level consists of the E2 Impulsive and E3 Self-Protective stages (see above – Table 1). The Conformist level consists of the E4 Conformist and E5 Self-Aware stages. The Postconformist consists of the E6 Conscientious, E7 Individualistic, E8 Autonomous and E9 Integrated stages.
(Newman, Tellegen and Bouchard, 1998). Adults can remain at the Preconformist level and Loevinger (1990) cited W.C. Fields as an example of a caricature of an adult who remained at this level in terms of his hostile humour.

Loevinger's framework describes the movement from the immediate gratification of needs characteristic of the Preconformist stage of ego development, through an immersion in securing the acceptance of others as characteristic of the Conformist stage, to a growing awareness of complex individual differences and separateness characteristic of the Postconformist stage. Research with adolescents tends to have few subjects at the Postconformist level so some researchers combine the Conformist and Postconformist groups, which was done in the current research (Isberg et al., 1989; Noam & Houlihan, 1990).

Lower level responses are characterized by polarizations (e.g., good/bad, right/wrong) as well as by a lack of abstraction or complexity. Examples at this level are the following: “A good mother is good” or “Rules are dumb.” The higher level responses are more complex and integrated with subtleties lacking in lower level responses. Examples include “A good mother tries to learn when to be there for her children and when to leave them alone” or “Rules are important for society to function but sometimes may need to be broken” (Hauser, Borman, Jacobson, Powers & Noam, 1990).
The rationale for choosing a semi-projective test was that it allowed the adolescents to project onto the incomplete sentences their core level of ego function (Loevinger & Wessler, 1970). This approach seemed particularly relevant for adolescents and music research as the test may tap into aspects of the subject about which he or she may not be fully aware or find difficult to communicate:

Projective tests are indirect questions, and the responses to them are indirect answers, pertaining to the psychological structure of the subject, and their use implies a theory of personality which assumes that much of this psychological structure is not consciously experienced by the subject" (Rapaport, Gil & Schafer, 1968, p. 227).
Table 2

WUSCT Responses at Different Ego Levels Relevant to Adolescence

*Stem:  When I am criticized*

<table>
<thead>
<tr>
<th>Stage</th>
<th>Response</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-protective</td>
<td>I get mad and don’t talk</td>
<td>Need to protect the self</td>
</tr>
<tr>
<td>Conformist</td>
<td>I feel as if I’m not wanted</td>
<td>Feelings of rejection by group</td>
</tr>
<tr>
<td>Self-aware</td>
<td>I generally sulk for awhile</td>
<td>Feeling conscious of the self</td>
</tr>
<tr>
<td>Conscientious</td>
<td>I lose confidence in myself</td>
<td>Evaluation of the self</td>
</tr>
<tr>
<td>Individualistic</td>
<td>I reassess my thoughts or actions and then act upon constructive criticism</td>
<td>Taking responsibility for one’s actions</td>
</tr>
<tr>
<td>Autonomous</td>
<td>I often am angry at first. Then I think about it and decide if it is justified or not. I also think about who has given the criticism and their motives.</td>
<td>Indicates conceptual complexity with three possibilities considered</td>
</tr>
</tbody>
</table>


*Psychometric Properties of the WUSCT*

Holaday, Smith, and Sherry (2000) referred to the WUSCT as “possibly the most psychometrically impressive projective test there is” (p. 375). This section will examine the reliability and validity of the WUSCT across a wide range of studies with both clinical and non-clinical populations. Hauser (1976a) and Loevinger (1979) reviewed a substantial number of studies and they concluded that sufficient evidence was available in their opinions to support the validity of ego development theory and the WUSCT as its measurement. Manners and Durkin (2001) as well as Westenberg, Hauser and Cohn (2004) provided an updated
review of research relevant to the psychometric properties of the WUSCT since these two seminal articles.

Internal consistency of the WUSCT is high (Cronbach’s alpha = 0.91 or higher; Loevinger & Wessler, 1970, 1998; Weiss, Zilberg & Genevro, 1989). In addition, a principal component analysis showed only one major component, a demonstration of the supposed unity of the test (Westenberg et al., 2004).

**Reliability Studies**

Highly significant interrater reliability was found in a range of populations (Browning, 1987; Dubow, Huessman & Eron, 1987; Gfellner, 1986a; Hauser et al., 1984; Loevinger & Wessler, 1970; Noam, et al., 1984; Noam & Dill, 1991; Novy & Francis, 1992; Snarey & Lydens, 1990; Waugh & McCaulley, 1981; Weiss et al., 1989). Perfect interrater agreement per item averages about 85% and interrater agreement within one stage (i.e., disagreements is not larger than one stage) is often close to 95% (e.g. Drewes & Westenberg, 2001; Westenberg & Gjerde, 1999). Several studies have suggested that the split half reliability of the WUSCT (and SCT-Y) is about .80 (Novy & Francis, 1992; Redmore & Waldman, 1975). Test-retest reliability is also high (Hoppe, 1972; Redmore & Waldman, 1975; Weiss et al., 1989). Interrater agreement, internal consistency, and test-retest stability also appear adequate when the WUSCT is administered to clinical populations (e.g. Weiss et al., 1989; Westenberg, Siebelink, Warmenhoven & Treffers, 1999).
Validity Studies

Four areas of validity – construct, predictive, structural, and discriminate will be reviewed.

Construct Validity

Many studies have supported the construct validity of the WUSCT (Carlson & Westenberg, 1998; Hauser, 1976; Kroger, 2004; Loevinger, 1979a, 1993; Manners & Durkin, 2001; Westenberg, Blasi & Cohn, 1998; Westenberg & Gjerde, 1999). Several studies used alternative measures of ego development and correlated with the WUSCT. The first study included the Thematic Apperception Test (Sutton & Swenson, 1983); two studies used the California Q-Sort test (Rozsnafszky, 1981; Westenberg & Block, 1993); Einstein and Lansing (1998) used the Self-Conscious Affect and Attribution Inventory (SCAAI), and the last study compared the competence score on the Psychological Inventory (Helson & Wink, 1987). These studies found significant relationships with the WUSCT thus providing substantial evidence for construct validity of ego development.

Manners and Durkin (2001) examined the concept of the unitary nature of the ego as a master trait proposed by Loevinger (1966). They found support from the factor analysis of the WUSCT in a study of a large sample of women conducted by Loevinger and Wessler (1970). They also noted the failure of
several studies to separate specific domains of ego development (Blasi, 1976; Loevinger, 1993). Novy and colleagues (1992) applied structural equation modelling as a test for investigating the structural validity of the WUSCT. They derived four models from the structure of the network of relations among the four strands of impulse control, interpersonal style, conscious preoccupations, cognitive style and Loevinger's conceptualization of ego development. Their conclusion, contrary to Loevinger (1976), was that the four strands and ego development were all aspects of a single process. Loevinger theorized that ego development was the underlying factor in the four strands.

**Predictive Validity**

Loevinger and Wessler (1970) stated that it was inappropriate to expect a clear one-to-one relationship between ego level and overt behaviour. However, several studies did explore the relation between level of ego development and different behaviours in that lower ego development level was associated with more impulsiveness (Starrett, 1983), higher authoritarianism beliefs (Browning, 1983) and more defiant behaviour (Frank & Quinlan, 1976).

**Discriminant Validity**

Discriminant validity comprises the most likely variables confounded with ego development and included verbal fluency, intelligence, age, SES, and gender differences (Hauser, 1976; Loevinger, 1979). Each of these variables will be explored in more detail below.
Verbal Fluency

A number of studies have found substantial associations between verbal fluency and ego level (Einstein & Lansing, 1998; Hauser, 1976; Loevinger, 1979; Kishton, Starrett & Lucas, 1984; Vaillant & McCullough, 1987). Einstein and Lansing (1998) assessed fluency as the number of words per protocol and found it to be correlated (.60) with ego development level, a value comparable to previously reported values of .58 (Loevinger & Wessler, 1970) and .64 (McCrae & Costa, 1980). Kitchener, King, Davison, Parker and Wood (1984) found that the correlations between the WUSCT and verbal ability measured by the Concept Mastery Test were insignificant. Ego development despite its moderate correlation to verbal fluency is not simply a measure of verbal fluency or the correlations would have been higher (Cohn, 1991; Loevinger, 1996; Newman, Tellegen & Bouchard, 1998).

Intelligence

The majority of studies looking at the relationship between intelligence and ego development were based on findings from non-clinical normal samples (e.g., Redmore & Loevinger, 1979), in which intelligence was measured as a single score (Browning & Quinlan, 1985). Many of the early studies found no significant relationship between ego development and intelligence (Haan, Stroud & Holstein, 1973; Hoppe & Loevinger, 1977; Hauser, 1978; Loevinger & Wessler, 1970).
More recent studies, however, have found a positive and significant relationship between ego development and intelligence measured by a variety of tests in clinical samples. Frank and Quinlan’s (1976) study of inner city female adolescents found a significant correlation between ego development and the Peabody Picture Vocabulary Test of Intelligence. Two studies, one by Rozsnafszky (1981) and the other by Wiber, Founsaville, Sugarman, Casey, and Kleber (1982) found moderate correlations with intelligence and ego development in samples of male alcoholics and adult opiate addicts respectively.

Browning and Quinlan (1985) conducted a comprehensive study on this issue with 91 hospitalized adolescents and young adult psychiatric patients. They found a highly significant correlation with the verbal part of the Wechsler Intelligence Scale for Children, Revised (“WISC-R”) or the Wechsler Adult Intelligence Scale (“WAIS-R”) and significant correlation with the full-scale score of the WISC-R. The performance part of the WISC-R was not significant. The two subtests that were significantly different for the Preconformist level and Postconformist level was the comprehension subtest followed by the information subtest. Browning and Quinlan concluded that since social judgment and reasoning were related to ego development and that the WUSCT was more than just a measure of intelligence.

Silver, Bauman, Coupey, Doctors and Boeck (1990) found substantial associations with verbal I.Q., reading level, and ego level. They found verbal
ability measured by the Peabody Picture Test (PPVT) contributed to the largest proportion of the variance in ego development level. They also found substantial associations with verbal I.Q. and reading level measured by the Wide Range Achievement Test (WRAT) reading test.

A recent meta-analysis of more than 40 studies including approximately 4,700 participants reported that the weighted average correlations between ego level and (verbal) intelligence ranged from .20 to .34 (Westenberg, Hauser, & Cohn, 2004).

Hauser (1976) raised the question over thirty years ago that research was needed to explore the relation between intelligence and ego development and whether higher levels of intelligence was a necessary requirement for higher ego stages. This question remains an important yet unexplored aspect of the research into ego development level.

Age
Although age trends were not a formal aspect of the ego development model (Loevinger, 1966), age is included in conceptual descriptions and in the scoring manual (Loevinger & Wessler, 1970; Loevinger, 1985). Age trends are related to the assumption of invariant order. If one finds increasing ego development levels with advancing age, it suggests that the sequence is an ordered one. The existence of age patterns alone does not in any way support the assumption of
invariant order, which is a difficult concept to prove or disprove (Hauser, 1976). Loevinger (1976) suggested that age was related to ego development in the sense of being a necessary but not a sufficient condition for reaching certain stages. Furthermore, Loevinger claimed that ego development “is at once a developmental sequence and a dimension of individual difference at any age cohort” (Loevinger, 1976, p. 13).

Holt (1980) surveyed 1,000 young people between the ages of 16 and 26 years. The most frequent score was at the E6 Conscientious Conformist level. For the non-college sample, most of the remaining cases were below that level. For the college sample, most of the remaining cases were above that level. However this survey used only 12 items rather than the standard 36 items and was administered orally rather than through the usual written data. Thus, its predictability for all adolescents and early adults is limited.

Cohn (1998) conducted a meta-analytic assessment of age trends and sex differences in ego development research. He found that during adolescence, females rated significantly higher on ego development but during the college-age years this difference lessened. He also found that the modal ego level for adolescents was the E4 Conformist level whereas for adult the modal level was the E5 Self-Aware level (one level higher).
Longitudinal studies have generally indicated an increase from the E3 Self-Protective to the E4 Conformist during the high school period with the adolescent period having the most gains in ego development level (Kitchener et al., 1984; Novy, 1993; Redmore & Loevinger, 1979; Rogers, 1998; Westenberg & Gjerde, 1999). Specifically Westenberg and Gjerde (1999) examined subjects from early adolescence to early adulthood on ego development level and they found an average increase of 1.5 levels in ego development. However, they reported large individual differences in the timing and extent of ego development gains. Westenberg and Gjerde also found a moderate relationship between ego level at 14 years and latter ego level at 23 years of age. They found the smallest change for those adolescents who had reached the E3 Self-Aware stage during adolescence whereas adolescents who started at the lower levels of ego development made the most gains.

According to Loevinger (1976), ego development change is thought to either slow down or to stop for most adults. She discussed the "amazing stability" of the ego and suggested that the average adult was unlikely to advance in ego level after high school or university. However, Manners and Durkin (2001) have questioned the irreversibility of ego stages. They concluded that stage stability is not an inherent characteristic of late adolescent and adult ego development and ongoing development is possible due to life experiences. They theorized that experiences that might disturb the current development structure could either provide a transition to a more complex or perhaps even lower stage. A study by White
(1985) found it was possible to increase the ego development level of nurse trainees who were at the Preconformist level. Nurse trainees already at the Conformist and Postconformist stages did not achieve marked advances in their ego development levels during the empathy training program that they had designed to increase ego development level. As well, Bursik (1991) examined the adjustment problems following their divorce for two groups of women one year apart. The first group of divorced women who initially showed few adjustment problems, but one year later was found to have more problems had regressed in ego development level. However, the second group who initially had reported more adjustment problems following their divorce and one year later still reported problems, they remained at the same level in ego development. Bursik wondered if the first group had minimized the impact of their divorce and were more aware one year later of what they were coping with. These two studies suggest that life events and one’s ability to cope with them may impact positively or negatively on ego development level and clearly more research needs to be conducted to explore this issue further.

**Socio-Economic Status (SES)**

In a unique study, Snarey and Lydens (1990) explored the relationship between SES, work complexity and ego and moral development in three groups of participants. All participants had worked on a kibbutz but were then divided by those who had stayed and those who had left to work in either Israel or North America. They found that ego and moral development were significantly
correlated with occupation and education among workers in the two urban settings but not in the kibbutz. Work complexity accounted for a significant amount of the variance in ego stage among the kibbutz workers but not among the urban workers, in which it was education for the Israeli workers and occupation for the North American workers. These findings suggest that ego development is not necessarily related to SES, and that other factors are relevant in terms of the opportunities they provide for psychological growth. Gfellner’s (1986) results were consistent with those previously reported (Hauser, 1976; Loevinger, 1976; Martin & Redmore, 1978; Redmore & Loevinger, 1979) for adults. Her study examined the influence of SES on ego functioning in a heterogeneous sample of adolescents. She found that low SES students remained a half ego level lower than medium and high SES students even through university. Browning (1987) in a large sample of almost 1,000 male and female participants ranging in age from 16 to 25 years used several indices of SES including parents’ education and occupation, found more complex results. Specifically, father’s education and occupation were not significantly related to ego development after the age of 18 years for male respondents and 22 years for female respondents. Mother’s education was correlated only for both males and females over 22 years of age. Hansell, Sparacino, Ronchi and Strodtbeck (1985), in contrast, found a moderate and significant correlation between ego stage and both father’s education and occupation in a sample of older adults. Although it appears that there does exist a relation between SES and ego
development, the research by both Browning (1987) and Snarey and Lydens (1990) suggested that this is a complex issue in need of more clarification.

**Gender Differences**

Cohn (1991), in a meta-analysis of over 65 studies examined gender differences in personality growth throughout adolescence and adulthood. He found a stable pattern both in the studies he labelled homogenous (one age group only) or heterogeneous (a range of ages surveyed). He found that adolescent girls scored significantly higher than adolescent boys on the WUSCT from junior through senior high school. This gender difference declined significantly among university students and disappeared almost entirely among older women and men. Gfellner (1989) offered an explanation for the higher levels of ego development for adolescent girls. She postulated that for females, conflict and some cross-gender behaviour was permissible depending upon the female's social group. She suggested that females' ability to try out more flexible roles could produce cognitive restructuring that results in ego level advancement.

Westenberg and Gjerde (1999) reported a significant gender difference only for the individuals who were at the E3 Self-Protective level at 14 years. Females at this level were 91% likely to moved to the next level or higher by 23 years. However, males at the E3 Self-Protective level were significantly less likely than females to increase their level of ego development by age 23 years.
**Ego Development and Adolescence**

The majority of young non-clinical adolescents typically score between the E3 Self-Protective and E4 Conformist stages of development, with girls tending to score higher than boys (i.e., E3 Self-Protective-E4 Conformist versus E3 Self-Protective, respectively). Older adolescents tend to score between the E4 Conformist and E5 Self-Aware levels. In non-clinical samples of adolescents, the shift from Preconformist to Conformist generally occurs between 12 and 15 years of age (Redmore & Loevinger, 1979; Westenberg & Gjerde, 1999).

Many studies have used ego development to understand issues relevant to adolescent development (Holt, 1980; Loevinger, 1990; Westenberg & Gjerde, 1999; Westenberg, van Strien, Drewes, 2001), such as identity (Blasi & Milton, 1991; Kroger, 2004; Newman, 2005), moral judgment (Gfellner, 1986a,b; Snarey, 1998), self-image complexity, and self-esteem (Hauser, 1976; Hauser et al., 1983; Ishberg et al., 1989); emotions (Hauser, Safyer, 1994) and parental style and family contexts (Adams & Jones, 1981; Allen, Hauser, Eickholt, Bell & O’Connor, 1994; Hauser with Powers & Noam, 1991). Other research has used ego development to understand adolescent psychopathology and include depression (Rierdan, 1998; Rierdan & Koff, 1991, 1993); suicide (Borst & Noam, 1993; Borst, Noam & Bortok, 1991; Noam, Paget, Valiant, Borst & Bartok, 1994); problem behaviours (Noam et al., 1984; Novy et al., 1992), coping (Hauser, Borman et al., 1991) ego resiliency (Westenberg & Block, 1993), and social
anxieties (Westenberg, Siebelink et al., 1999; Westenberg, Siebelink & Treffers, 2001). All of this research will be presented in more detail below.

Longitudinal Studies

Much of the early research using the WUSCT in adolescence is based on two research projects affiliated with Harvard University. The first project was the Adolescent and Family Development Study ("AAFDS") of the Harvard Medical School and was a four-year study that began in 1978. The project followed 146 adolescents and their families (Hauser, with Powers & Noam, 1991). The study began with three groups of adolescents – high school freshmen, psychiatric patients admitted to a private university-affiliated hospital, and adolescents admitted to an inpatient program for diabetics. Most of the researchers’ published findings did not include the diabetic adolescents but focused on the two other groups. All adolescents with thought disorders or organic brain damage were excluded from the psychiatric group of adolescents. All three groups of adolescents were given annual tests to measure level of ego development, self-esteem, self-image, ego defenses, and other adaptive processes. Their parents were also measured annually on their level of ego development. Both the adolescent and his or her family participated in discussions on moral development dilemmas and were then each rated on their constraining and enabling interactions. The experimenter presented the family members with moral dilemmas and then left the room. The family members were asked to reach a mutual decision around these dilemmas and were informed that
they would be taped during their ensuing discussion. The family interactions took place at either the adolescent’s suburban high school or at the private psychiatric hospital’s children’s unit.

As a result of the work began for the above-mentioned project, Noam established the Harvard/McLean Laboratory of Developmental Psychology and Developmental Psychopathology in conjunction with the Harvard Medical School (Hauser et al., 1991). Many studies included in the psychopathology section originated from this laboratory and highlighted the interaction of development and psychopathology in clinical issues such as depression, suicidal behaviours, and psychiatric disorders among adolescents and adults.

Hauser and colleagues described specific ego development trajectories that they found in the AAFDS. They labelled the three trajectories as progressive, regressive and profound arrest and to see an in-depth description of these various trajectories in adolescence (refer to Hauser, Gerber & Allen, 1998).

Current research focusing on resiliency in a major study entitled the High Valley Resilience Study (“HVRS”) resulted from re-contacting the original subjects used in the Adolescent and Family Development Study at 25 years of age. They found 98% of the same subjects (Hauser, Allen, Golden, 2006). New interviewers were utilized and as in the earlier study, a battery of assessment measures of psychological development were utilized for the adults. They labelled “resilient”
any former psychiatric patient who scored in the top half of the scores utilized for the entire group of once hospitalized and never hospitalized (143 young adults). They found 13% of the former patients who fit into this category. They found significant narrative differences between the resilient group of ex-psychiatric patients and the other group of ex-psychiatric patients who were not faring so well. They found in the resilient groups’ narratives that they expressed increased competencies in reflectiveness, agency, and relatedness with others. They also found coherence in the narratives and used it as a means to explore how well their past experiences had been integrated. Hauser and colleagues presented examples from the resilient group and contrasted it with the former psychiatric group members who were struggling.

In a recent longitudinal study, Westenberg and Gjerde (1999) measured ego development twice – once at age 14 and the next time at 23 years. They found that at age 14, there were four ego levels ranging from E3 Self-Protective to E6 Conscientious. The modal level at 14 years was E4 Conformist for females and E3 Self-Protective for males. The modal level at 23 years was E5 Self-Aware for males and E6 Conscientious for females. The average growth in ego level approached 1.5 steps. Females scored higher than males at both ages and the female advantage increased slightly but significantly. Being at a relatively low ego level at age 14 predicted a relatively low ego level at age 23. Self-Protective and E4 Conformist individuals made the largest gains at age 23. Significant gender differences were observed for males and females who were at the E3
Self-Protective level at age 14 years. Ninety-one percent of females at this level were found by age 23 years to have progressed to the E5 Self-Aware level or beyond. In contrast, E3 Self-Protective males were at a significantly lower level than females at age 23 years.

**Self-Image Complexity and Self-Esteem Studies**

In the Adolescent and Family Development Study (“AAFDS”) research cited above, self-esteem was measured using the Coopersmith Self-Esteem Inventory and self-image complexity was measured using a Q-sort of seven self-image arrays. The psychiatric group was predominately at the Preconformist level that was significantly lower than both the diabetic and high school groups of adolescents (Hauser, 1976; Hauser et al., 1983). The psychiatric adolescents tended to polarize and show diminished complexity in self-image compared to the other two groups. The researchers also found that low levels of ego development (Preconformist) were associated with low levels of self-esteem. The psychiatric patients had significantly lower self-esteem than the other two groups and significantly more of them were in the Preconformist level (Jacobson, Hauser, Powers & Noam, 1984). They also found that parental behaviours (particularly devaluing interactions) were significantly correlated with adolescent self-esteem for the Preconformist but not for the Conformist or Postconformist adolescents (Ishberg et al. 1989).
Family Interactions

Hauser with Powers and Noam (1991) investigated how family interactions contributed to and were shaped by adolescent ego development. As described above, families were taped discussing a moral dilemma together and trying to reach a mutual solution. Hauser and colleagues found that interactions characterized by acceptance and non-authoritarian approach were related to higher developmental levels for the adolescents especially for female adolescents.

Von der Lippe (2000) examined family discourse with a small group of late adolescent girls and their parents. They found that parental cognitive and affective enabling but not constraining communications predicted the daughters’ ego development level. Fathers’ cognitive and affective enabling transactions and mothers’ affective enabling and transactions contributed to the explained variance in the adolescents’ ego development when the daughters’ age, and parents’ SES and ego developmental were controlled. Furthermore, parents’ ego levels were related to their enabling transactions, which predicted daughters’ ego levels, suggesting that enabling parenting behaviour plays a mediating role. Mothers’ challenging behaviour towards daughters was also related to higher ego developmental levels in daughters.

Identity

A number of studies investigated the formation of adolescent identity (Adams & Fitch, 1982; Dubow et al., 1987; Gfellner, 1986a; Kitchener et al., 1984;
Krettanaeur, 2003; Loevinger et al., 1985; Novy, 1993; Redmore & Loevinger, 1979; Redmore, 1983; Rogers, 1998; Westenberg & Gjerde, 1999). Newman (2005) investigated ego development level and identity formation and psychological adjustment in a group of 96 American Indian youth and their parents. She found distinct characteristics for all three levels of ego development. Adolescents at the Preconformist level had the least developed ethnic identities and the lowest levels of depression and anxiety. Conformist adolescents expressed positive feelings about ethnic identity and belonging, were the most harmonious with their peer relations, and scored higher in negative affect and depression than the Preconformist youth. Postconformist adolescents had the highest level of identity achievement as well as the highest levels of psychological distress and family conflict. Newman suggested that the family conflict found for the Postconformist youth might partly result from their need for individuation from their family thus causing conflict with the parents. The results of Newman’s research demonstrates the stages of ego development as the Preconformist level tend to be less aware of identity issues, the Conformist with fitting with their peer group and the Postconformist group with identity achievement.

*Emotional Expression*

Hauser and Safyer (1994) investigated the relationship between ego development and the adolescent’s ability to communicate emotional experience. They found that specific emotions, such as enthusiasm, affection, anxiety, and
neutrality were associated with higher stages of ego development. Other emotions such as anger and sadness were inversely correlated with ego development. These findings were similar for both males and females.

_Ego Development and Psychopathology_

Loevinger, Wessler and Redmore (1970) stated that the WUSCT does not delineate the mental health of individuals; rather, it more broadly suggests an individual's approach to life. She further stated that every stage has the potential for adjustment and growth as well as maladjustment (Loevinger, 1993). Many researchers have questioned this notion and, in particular, Noam (1998) and Rierdan (1998) and their views will be presented later in this section. Two key issues have appeared in this area of research. Early research tended to focus on the particular struggles related to remaining at the Preconformist level during late adolescence and adulthood with its greater maladjustment. The second issue has been how behaviour or symptomatology was expressed depended on one's level of ego development and whether different vulnerabilities result from one's ego development level.

The early research by Hauser and colleagues (1991) found the group of hospitalized psychiatrically ill adolescents to be significantly lower on ego development levels than comparable groups of adolescents who were either diabetic or non-clinical high school students. The psychiatrically ill adolescents were predominantly at the Preconformist stages (Hauser, Powers, Noam, 1990;
Noam & Houlihan, 1990; Noam et al., 1984). Noam and his colleagues found a strong relationship between ego development and symptom expression during adolescence and adulthood including that the severity of the psychiatric diagnosis decreased with increased ego development (Dill & Noam, 1990; Noam, 1992; Noam et al., 1991a). Adolescents at the Preconformist stages of ego development evidenced more externalizing behaviours (impulsivity, acting out, delinquency) and Conformist adolescents were consistently more prone to directing aggression against the self (feeling guilty and/or depressed).

According to Noam (1998), “mental health issues such as impulsivity, deception, manipulation, social anxiety, over dependence, over control, and perfectionism are written into the ego development sequence so thereby cannot be viewed as orthogonal” (pg. 279). He described key vulnerabilities at each level of ego development and included

E2  Impulsive  Manipulation/mental disorganization
E3  Self-protective  Loss of self; conformity
E4  Conformist  Perfectionism, rigidity
E5  Self-aware  Loss of meaning; existential despair

However, both Noam and Loevinger agreed that being at the Preconformist level as an adult will most likely yield problems. Noam (1998) specifically stated that a delay at the Preconformist level was a risk factor for externalizing disorders. Rierdan (1998) questioned whether Preconformist levels of ego development represented a generic vulnerability to all forms of psychopathology or whether the
various stages grouped under the Preconformist level involved vulnerability to
different pathologies. Rierdan wondered if those individuals at a lower ego
development level than expected for their age might have more difficulty with
coping the normal stressors at their stage of development.

*Externalizing Behaviour*

The general pattern is that externalizing behaviour is most related to the
Preconformist level (Noam, 1998). Externalizing behaviour is related to issues of
impulsivity, conduct disorder, aggression, and problem behaviours. Adolescents
at the Preconformist level were found to have a greater likelihood of psychiatric
hospitalization (Browning, 1986; Gold, 1980; Noam & Houlihan, 1990); be
juvenile offenders (Novy et al., 1992); exhibit problem behaviours (Frank &
Quinlan, 1976; Noam et al., 1984); have a separation anxiety disorder
(Westenberg et al., 1999); report concrete physical fears (Westenberg et al.
2003); have lower self-esteem (Novy et al., 1992; Peuckonis, 1990) show
avoidance and ventilation (Recklitis & Noam, 1999) despite being from different
populations. Noam, Hauser, Santostefano, Garrison, Jacobson, Powers and
Mead (1984) explored the relationship between ego development level and
externalizing/internalizing behaviours derived from the Achenbach Behaviour
Checklist (ABC). Noam and Recklitis (1990) with inpatient adolescents found
that the relationship between aggressive behaviour and lower ego development
level was demonstrated by both staff reports and the use of the clinical restraints
on the ward.
Internalizing Behaviour

Internalizing problems such as anxiety and depression can be present at all ages and ego development levels but appears to be found more at the Conformist level or beyond (Westenberg et al., 2004). Internalizing problems such as generalized anxiety disorder (Westenberg et al. 1999); problem-solving and interpersonal strategies (Recklitis & Noam, 1999); fears related more to social-evaluative factors (Westenberg et al., 2003) were more related to the Conformist level of ego development. As described above, the research by Noam et al. (1984) did find a significant relationship between ego development level and internalizing behaviour, however this relationship was not significant following a regression analysis partialling out the background variables of age and gender. Similarly, Browning (1986) did not find a relationship between internalizing symptoms and higher stages of ego development.

Anxiety disorders

Westenberg, Siebelink and colleagues (1999) investigated the relationship between ego development and the anxiety disorders of separation anxiety disorder (SAD) or overanxious disorder (OAD) among a group of children and adolescents referred to an outpatient psychiatric clinic. They found that the level of ego development was the strongest predictor of having either SAD or OAD. Specifically, SAD was related to the E2 Impulsive level and OAD was related to the E4 Conformist level of ego development.
Depression and/or Suicidal Behaviour

In an early study, Gold (1980) found that for mid-adolescent high school students that there was significant tendency for depression to be more characteristic of the Conformist group than the Preconformist group. Noam (1998) suggested that the depressed (unaggressive to others) adolescent was typically at the Conformist level. Three studies (Borst, Noam & Bartok, 1991; Borst & Noam, 1993; Noam, et al., 1994) investigated ego development level and suicidal behaviour. The research examined admissions to a private psychiatric clinic between 1985-1989 for a large sample of male and female adolescents. In their sample, one-half of the girls had attempted suicide whereas only one-fifth of the boys had done so. The researchers found the Conformist adolescents were significantly more likely than the Preconformist adolescents to attempt suicide. This correlation was significant even when gender and diagnosis were controlled for. The researchers concluded that an adolescents’ frame of reference (i.e. ego development level) was an important element in understanding the “developmental dimensions of suicidality” (Noam et al, 1994, p. 44).

The three studies found significant differences according to whether the adolescent scored in either the Preconformist or Conformist ego development level. Preconformist attempters were described as the “angry defiant” type and presented with depression and aggression. This group reported significantly more externalizing symptomatology. Conformist attempters were described as
“self-blaming” and presented with depression only. This group reported significantly more internalizing defenses. Depression was a significant risk factor for suicide at both levels. The researchers concluded an important difference clinically between the Conformist and Preconformist attempters was their interpretation of what lead to their suicide attempt. The Conformist attempters blamed themselves whereas the Preconformist attempters blamed their external environment.

In her research, Rierdan (1993, 1998) found that high depression scores were more characteristic of Preconformist than Conformist adolescent girls. She found that among the Preconformist girls higher BDI scores were found at 6th grade and 9th grade and lower ones at grades 7 and 8. Rierdan expected age stage dyschrony but was puzzled with results that indicated the 6th graders scored higher on depression. What she discovered in later research was a relationship between developmental issues and ego development levels. The Preconformist girls who were also premenarceal were more depressed. Rierdan understood this relationship as a developmental challenge that the girls were not ready to cope with in Grade 6. At grade 9, girls were more psychologically prepared to cope even if they were at the Preconformist level, which is why they were not depressed.

Newman (2005) found that the Postconformist group had the highest levels of psychological distress (depression and anxiety) and family conflict than other two
groups. Newman interpreted this as an understandable result of the conflicting messages for Native Americans culturally as they are often portrayed in a negative way by the media. She also wondered about the conflict in terms of patterns of individuation.

Adult Studies and Psychopathology

The findings of several other studies with an adult research population, however, have not supported the above-stated relationship of psychopathology and lower ego development (Vaillant & McCullough, 1987; Waugh & McCaulley, 1981). It is important to note, however, that although these studies found no relationship, the distribution of participants was weighted so that there were very few subjects in any of these studies who scored above the relatively low Conformist stage of ego development. Hauser, Gerber & Allen (1998) found that lower levels of ego development in adolescence were found in adulthood to be related to adults who expressed greater hostility and had poorer parenting skills that other adults at the higher levels of ego development level.

School Commitment and Music Experience

The role that secondary school plays in an adolescent's life is significant. Many adolescents turn to school culture and away from their parents as an alternative source of information (Christenson & Roberts, 1998). While the primary focus of the school is to educate, school is also the primary context for social interaction, cultivation of interpersonal skills, formation of peer groups, self-expression, and
the development of self (Henry & Slater, 2007). There is considerable research that examines the relationship between adolescents’ uses of popular music and their experiences at school. Brown and O’Leary (1971) were the first researchers to make the link between school experience and adolescents’ use of pop music in Britain. They found that students who did not do well at school were significantly more likely to be highly involved with pop music culture.

Murdock and Phelps (1973) also investigated this link and created the School Commitment Scale (“SCS”) to further their research. The SCS was created to reach those students who despite doing well at school were less committed to being at school. Negative commitment to school is related to a preference for problem music whereas positive school commitment is associated with more mainstream pop music (Roe, 1995). Gender differences have been found on the SCS with females significantly more committed to school than males (Roe, 1983, 1985, 1987; Tanner, 1981). The SCS has been utilized in research studies conducted in Britain, Sweden, United States, and Canada to examine the role school plays in an adolescent’s life regarding popular music orientation. The level of school commitment in the present study was hypothesized to affect the two different experiences of music used in this research. Specifically, the adolescent subjects would use the factors derived from both the WMQ and ASDS differently depending on whether they had a low or high commitment to school.
One of the largest research projects that utilized the SCS was part of a longitudinal study of Swedish youngsters that was designed to investigate their relationship with school and the media for both children and adolescents (Roe, 1983). The research project was called the Media Panel and was undertaken by Department of Sociology at the University of Lund, Sweden. Two research panels were involved: 1) nursery school children and their parents and 2) primary school children and their parents. Specifically, Roe used research obtained from the first wave of the research, which followed adolescents from the age of 11 to the age of 15 years for his dissertation. This study was influential in making the decision to implement the SCS for the present study and was seen as an important addition to the WMQ. Roe has since published numerous articles on music in adolescence including research on preference for hard or soft rock music, identity factors, adolescent socialization, music videos, media delinquency, social class, and knowledge of music (Roe 1983, 1985, 1993, 1995, 1999; Roe & Jarlboro, 1998; Roe & Lofgren, 1988).

The research on the relationship among school factors, adolescent development and popular music began in Britain (Brown & O'Leary, 1971; Murdock & Phelps, 1973) and continued in Sweden with the extensive research work conducted by Roe (1983, 1985, 1993). Two Canadian studies have been conducted, one involving Edmonton high school students (Tanner, 1981) and the second involving youth in Calgary (Friesen, 1990). Several researchers from the United States have also conducted work in this area and reviews of these studies are
summarized at the end of this chapter (Christenson & Roberts, 1998; Hakanen & Wells, 1993).

**British Studies**

Brown and O'Leary (1971) used a sample of over 600 secondary students to examine the relationship among pop music, school achievement, and peer relations. They found that high academic achievers were generally less involved in pop music than low academic achievers. The researchers suggested that those who failed to shine academically turned to popular music as an alternative source of gaining peer group prestige. They also found those youth who had turned to popular music were popular with their peers. Their conclusion was that involvement in pop music was part of the usual adolescent social system and was part of their experience at school. This study was the first to link school experience with involvement with pop music in a negative way and to document how popular music played a central role in the adolescent social system.

As noted, Murdock and Phelps (1973) created the SCS. The first phase of their research comprised a survey of 90 secondary schools in England which concentrated on two factors: 1) teachers' attitudes towards the mass media and 2) how teachers used mass media in their classrooms. Based on questionnaire responses, the researchers selected 10 schools, which represented the diversity needed for the next phase of the study. Some students within these schools were administered self-report questionnaires in the first and third years of their attendance at their schools.
In this phase of their study, which is relevant to the present study, four groups of adolescents were identified. Group I students had a high commitment to school and tended to define themselves mainly as good students with an emphasis on academic achievement and conformist behaviour. Group I expressed little interest in popular music. Students in this group reported that most of their spare time was taken up with homework or school-sponsored activities. They were significantly more likely than other pupils to be members of a school club or society or to play on a school team. They also reported that they participated in activities that were school approved such as stamp collecting or reading.

Students in Group II also had a high commitment to school but unlike Group I, were also involved in various areas of pop music. This group put the demands of school, such as homework, first and turned out for school activities but when these activities were completed, they listened to music or went dancing. The authors interpreted this group’s pop involvement as complementing their school involvement whereby these adolescents found that pop music provided a useful means of exploring and constructing a viable sexual and emotional identity. Murdock and Phelps postulated that involvement in pop music allowed this group of adolescents the opportunity to explore and come to terms with areas of personal development beyond school, which tended to cater only to intellectual ability. Students from Groups I and II were drawn from similar backgrounds.
Group III students demonstrated low school commitment and high popular music involvement. For these students, the forms of expression provided by the pop media represented an alternative rather than a supplement to those sponsored by the school. This group was highly involved in all aspects of pop culture and appeared to have little interest in school. The last Group, IV, consisted of adolescents with low school commitment and low pop involvement. The authors surmised that this group's basic values were drawn from the wider values of their neighbourhood. These adolescents were more influenced by the culture in their neighbourhood rather than pop values or their school environment. Also included in this group were adolescents who considered themselves loners and did not attend any group activities.

This study had important implications at the time. It was the first study to differentiate pop music into several styles rather than the generic pop category. It also revealed the predominant place of the mass media in the lives of adolescents. Most importantly, the findings illustrated how adolescents actively chose what music they liked and how the music was related to their experience of schooling, social background, and neighbourhood. In other words, it was not just the exposure adolescents had to popular music through radio or other media but also their personal characteristics also impacted on their music choices.
Swedish Studies

Roe (1983) was one of many researchers on a large research project on Swedish youth. The youth in his study were followed over a five-year period during their 11th, 13th and 15th years. The purpose of the research as stated above was to examine the relationship between children, the mass media, and the school system. The mass media investigated by Roe consisted of popular music and television. Roe focused on two aspects of the school system - school achievement and school commitment. School achievement was obtained from the school records at the end of each academic year. School commitment was measured by the SCS.

Both boys and girls had similar outcomes on the high and medium school achievement variable. Roe found that high school achievement was associated with an attachment to high academic status peer groups and a stated preference for classical and other approved musical forms. Medium school achievement was correlated to an attachment to average academic status peer group and a preference for mainstream music forms. Low school achievement was associated with greater peer commitment, negative commitment to school and a preference for oppositional forms of music (e.g., punk and heavy metal music).

Roe found an association between girls’ early and heavy involvement in pop music (at age 11 years of age) and negative effects with regard to later school
achievement, school commitment and future occupational expectations. Roe was not sure why this relationship existed but speculated that the girls’ early heavy involvement with pop might have developed in response to their giving up on school. The more successful an adolescent (male or female) was at school regardless of their family educational background, the more likely there was a correlation with preference for classical and mainstream forms of music. Students who failed in the school system tended to move instead towards socially disapproved and oppositional forms of music and at the same time tended to orient themselves more fully towards negative school peer groups. Roe concluded that the implication of these findings were profound since they showed that success or failure at school provoked oppositional music tastes and a greater orientation to peers.

Roe and Lofgren (1988) investigated music video use and educational achievement and commitment in Swedish youth. They surveyed 24 students aged 15 and 16 years, in two schools in the city of Gothenburg on their music video behaviours. School achievement was obtained from the grades assigned to each student and the SCS measured commitment to school in the usual way. The researchers found that students with lower school achievement watched music videos more than those with higher grades. Commitment to school (like school achievement) accounted for different amounts of music video watching. On weekdays, 38% of those with negative attitudes towards school, watched music videos for more than one hour per day, compared to 34% of the neutral
group and 26% of those who had positive attitudes towards school. On weekends however, most of these differences disappeared. In relation to school achievement and commitment, it was during the week that differences in amount of music video use were the greatest. Commitment to school also accounted for different amounts of music video use among students with similar levels of achievement. For example, students with medium achievement, but a negative attitude to school, had a higher level of use than students with medium achievement and a more positive attitude to school. On weekdays, students with low grades and a negative commitment to school watched music video TV later in the evenings. A negative commitment to school was also more strongly associated with regular watching on weekday afternoons indicating either a relationship between being truant and using music video TV, or indicating that this group switched to music video TV sooner upon returning home from school, or both. For those students with low grades and a negative commitment to school, music video watching tended more often to be a peer group activity.

Roe (1993) investigated the relationship between SES and music taste and knowledge of various types of music among Swedish youth. Questionnaires were administered to 1,334 adolescents between the ages of 15 and 16 years. Roe found that heavy metal was liked the most very low school achievers (regardless of background SES level). Classical music was positive in all social classes however very high middle class achievers liked it the best. Blues and jazz were liked the least of all music categories. He found a significant
relationship between very low achievement at school and liking of heavy metal music regardless of social class.

Roe (1995) speculated on the reasons some adolescents are attracted to what he labelled as socially disvalued media contents (e.g., listening to heavy metal rock and watching violent videos). He believed that those adolescents who could not fit in at school rebelled by using more socially disvalued media. Roe termed his theory the *media delinquency model* and stated that immersion in heavy metal does not cause delinquency.

Roe and Jarlboro (1998) investigated whether girls with school problems had a similar experience to boys, specifically whether school problems were associated with socially disvalued media use and delinquent behaviour. They distributed questionnaires anonymously in youth sexual health clinics across Sweden. Of the 9,277 respondents, 93% were females with the median age of 17 years. Girls’ media preferences were found to be independent of their SES background and their performance at school. Girls also reported their music preferences were based on their mood rather than what music their friends listened to. Roe and Jarlboro stated that this was different than for boys who tend to listen to the same music as their friends.

*Canadian Studies*

Tanner (1981) examined several factors among Edmonton high school students to assess how adolescents responded to pop music. The factors included
gender, social class, commitment to school, and self-reported delinquent behaviour. Social class was delegated by school area. Tanner surveyed the students on their behaviours linked to self-reported delinquency, which he then categorized as high, medium or low. He also asked the students their music preferences and found four categories: 1) Top 40; 2) Progressive Rock (defined as outside Top 40 format and beyond mainstream); 3) Heavy metal; and 4) Miscellaneous (e.g., country, classical). The study sample included 733 students from five schools (three junior and two senior high schools). Among the middle class adolescents, there was no relationship between preferred type of rock music and school commitment. Both male and female working class adolescents with a low commitment to school were less likely than those highly committed students to favour Top 40 rock. Conversely, students with a low school commitment were more likely than their highly committed peers to favour the music of heavy metal bands. This pattern was also found to exist between junior and senior high school students for both boys and girls. However, because the number of cells involved among all the factors and their levels for gender and social were often small, these findings were speculative. Nevertheless, the indication was that there was no relationship between types of rock music nominated as favourite among middle-class boys or girls. However, among both working-class boys and girls, low commitment to school was more likely than high commitment to be associated with heavy rock and conversely students with a high commitment to school were more likely than those with a low commitment to favour Top 40 rock.
Friesen (1990) investigated the heavy metal music scene in Calgary from July 1985 to July 1986. He interviewed 43 participants in a variety of heavy metal music settings including concert arenas, nightclubs, and a union hall. Findings were that a preference for heavy metal music was associated with reported feelings of powerlessness among participants. These youth reported that their lives were highly regulated by their high school and home environments. They found that turning to heavy metal was a way of throwing off the constraints of teachers and parents. He also found that graduation from high school often lessened the participants’ commitment to heavy metal music.

American Studies

Hakanen and Wells (1993) explored youth taste in music and its relationship to social class, gender, ethnicity, media preference and academic performance. In this section, only student academic performance will be highlighted. The researchers found significant relationships between music preferences and school performance except for the two genres of rock and country music. For pop, R&B/soul, new wave, classical, jazz, and easy listening, they found a highly significant relationship with performance at school. As performance at school increased, so did ratings of these genres. However, heavy metal showed a regressive trend.
Conclusion

An adolescent’s experience at school appeared to be related to both the role music plays in their life and what kind of music they prefer. Roe (1983) speculated that the school system created either an experience of success or failure for students, which in turn lowered the self-esteem of students who were not ranked successful. For some of these students preoccupation with popular music was experienced as a way of retrieving their lowered status.

The research studies conducted in many counties found strong similarities. A high commitment to school predicted that an adolescent was more likely to prefer mainstream Top 40 music; in contrast, an adolescent with a low commitment to school was more likely to prefer heavy metal music.

An adolescent’s experience at school is one of many aspects within their environment that appears to contribute to their use of popular music in their lives. The work of Roe and others raised the question of when music preferences are formed and whether early school difficulties predispose some children towards more controversial types of music in their teenage years. It also appears that adolescents who are not committed to school find other ways to feel good about themselves and many of them become immersed in popular music culture.
Age and Music Experience

The adolescents in this study were divided into three groups: early, middle, and late adolescence. Early adolescence begins the process of immense physiological changes as well as a turning to their peer group for many adolescents (Levy-Warren, 1992). During middle adolescence, parents are de-idealized at the same time as peer group relationships are more actively pursued (Levy-Warren, 1992). Late adolescence involves an integration of identity and consequent focus on developing personal standards and goals (Levy-Warren, 1992). It is possible that given the unique developmental needs of each group within adolescence that music preference as well as their responses to both the WMQ and ASDS will differ by age group.

Different mass media serve various social/psychological functions at different stages of adolescence (Chapin, 2000; Fine, Mortimer & Roberts, 1993). Most adolescents listen to music alone or sometimes with peers (Larson, Kubey, 1989). Older adolescents use this time alone while listening to music as part of their work towards establishing independence (Fine, Mortimer & Roberts, 1993). Chapin (2000) speculated that adolescents use the media to find out information from other sources than their parents. He characterized adolescents as active participants in seeking media sources that help them understand the development issues that are foremost in their minds. For example, an adolescent trying to figure out how to ask someone on a date might not want to look like they don't know to do so in front of their friends but might be willing to
LeBlanc, Sims, Siivola and Obert (1996) postulated a developmental theory of music preference by age, whereby young children up to age eight or so listen and express liking for a wide range of musical styles. Several researchers have found that around 8 or 9 years old there is a shift from being more open to various music styles to a narrowing of music taste to popular music, namely rock and pop music (Greer, Dorow & Randall, 1974; Leblanc et al., 1996). Beginning in high school, the range of music preference begins to steadily increase, reaching its largest peak in college. There is a further decline however in later adulthood as musical tastes become increasingly narrow.

Many researchers have found that adolescents starting high school prefer pop and rock music (Crowther & Durkin, 1982; Hakanen & Wells, 1993; Hargreaves, Comber & Colley, 1995). However more recent research of Dutch adolescents has shown that pre-adolescents aged 10-12 years were having a significant impact on the music industry with their preferences for pop music earlier than the previous research has demonstrated (Tillekens & Mulder, 2005).

**Age Differences in Music Preference**

In this area of research, sample sizes ranged from under 100 subjects to over 5,000 adolescents. Studies that had fewer than 100 subjects included Larson

Most studies in this area have investigated the shift in music preferences from one of more openness to different music genres to limiting music genres. Only one study investigated distinct age groups within adolescence but unlike this dissertation research, they used only two groups early and middle adolescents (Hargreaves et al., 1995). Many studies focused on adolescents only but several studies included a wider age range that spanned from early childhood to later adulthood (Greer, Dorow & Randall, 1974; LeBlanc et al., 1996).

Adolescent Studies

Several studies focused on different music genres and their preferences by age (Hakanen & Wells, 1993; Hargreaves et al., 1995). The research studies found that country and jazz music were disliked by all grades. Heavy metal music was liked most by Grade 10 students followed by Grade 9 students (Hakanen & Wells, 1993). Hargreaves and colleagues found an almost similar pattern with the older high schools students reporting a higher dislike of heavy metal music.
than the younger students. Hakanen and colleagues did not examine rap music preference. Hargreaves and colleagues however found that rap was only liked for a narrow band at age 12-13 years. They also found that rock music was considerable more liked at the younger age than it was for the older adolescents.

Schwartz and Fouts (2003) postulated that older adolescents would prefer light music compared to younger adolescents, because they had resolved many of the issues surrounding identity and rebellion and were dealing with the lighter issues regarding relationships. They found that senior high school students significantly preferred light music compared to the younger high school students. However, they did not find, contrary to expectations, that heavy music was preferred by younger adolescents.

Tillekens and Mulder (2005) summarized 15 years of research on the music preferences of Dutch children and adolescents. They concluded that the effect of age, although significant, was one of many dimensions and was rather small given the large number of adolescents questioned in determining music preferences.

Other Behaviours Differentiated by Age

Frith (1983) found different uses of music according to age. The younger group of adolescents reported liking the sound and the image of the performer, whereas the older adolescents reported preferring songs based on their meaning.
Raviv, Bar-Tal and Ben-Harin (1996) investigated the phenomenon of idolization of pop singers for three groups of children/adolescents aged (10-11, 13-14, 16-17 years). Idolization in this study comprised two components – worshipping and modelling. They found the youngest group reported the strongest amount of idolization, which decreased in intensity with age. Girls were also found to idolize pop singers overall more than boys. Both males and females chose a male pop singer as their age increased but for girls the shift by age was even more significant from preferring female pop singers to predominantly preferring male singers.

Roe (1999) found significant age differences between girls and boys in terms of their music listening. Girls began to increase their music listening around the ages of 9-10 years, an increase which became more marked around 11-12 years and continued until they were approximately 19-20 years. Boys, however, increased music listening around the ages of 13-14 years and continued up to 21-22 years of age. He also found that it was not until about 17 years that boys’ levels approached those of females and not until 21-22 years that they surpassed girls in amount of music listening.

**Summary**

There were no studies that specifically studied preference for the early, middle and late stages of adolescent development. Most of the studies were moderately
sized but had a wide age range that ended up with small groups in each age
group. It does appear in many studies that by late childhood or early
adolescence, a significant shift occurs in musical tastes. Adolescents prefer
fewer genres of music and tend to prefer pop or rock music overall throughout
their high school years. Based on the two studies that examined music
preference by genres in adolescence, it appeared that younger high school
students significantly liked heavy metal music and rap music more than older
high school students. However, as adolescents got older and reached university
levels, their openness to new genres of music appeared to broaden. It also
appears that adolescent girls listen to significantly more music than adolescent
males.
Chapter 4

METHODOLOGY

This chapter will detail the research process, including the selection of research participants, instrument choice and the relevance of these measures to the current study, and specification of the procedure for instrument administration. It will also describe the rationale for the research design.

Subject Selection

There were 126 subjects almost evenly divided by gender with 59 (48%) females and 67 (52%) males. The age range was from 12 years to 20 years. Of these subjects 33 (27%) were psychiatric in-patients at Sunnybrook and Women’s College Health Sciences Centre and 93 (73%) were community based non-clinical adolescents. A BDI (Beck Depression Inventory) was given to the latter group. Based on the number in the sub-group that emerged, three groups were designated – community-based non-clinical 72 (56%), hospital-based psychiatrically ill 33 (26%) and community-based depressed 21 (16%). The 93 community-based adolescents were recruited from various community sources: a Scarborough Separate Secondary School, a Brethren Church Youth Group, a United Church Youth Group, and a sample recruited from adolescents in the neighbourhood.
Psychiatric In-Patient Participants

These young people were recruited from the Adolescent Psychiatric Unit at the Sunnybrook and Women's College Health Sciences Centre. They participated in the study in a therapeutic group ranging from five to eight individuals, but it was not always possible for all group members to complete the study because of such factors as: inability to concentrate, the arrival of a visitor, or some aspect of their condition which precluded their taking part. However, the adolescents in the Unit expressed interest in the study as it offered a change from hospital routine as well as an opportunity to express their opinions about music.

The adolescents in the Psychiatric Unit suffered from a range of conditions: Mood Disorders (including Seasonal Affective, Bipolar and Depression); Oppositional/Substance Abuse; Anxiety (including Panic and Obsessive/Compulsive Disorder); Schizo-affective Disorder, and a category termed "undiagnosed psychiatric disorders." There were eight adolescents suffering from mood disorders, five from oppositional/substance abuse, three from anxiety, seven in the schizoaffective category, and 10 with undiagnosed conditions.

To receive formal approval to conduct the research within Sunnybrook and Women's College Health Sciences Centre, I worked with the Director, Dr. Stan Kutcher to complete a research proposal for review and approval by the Sunnybrook and Women's College Health Sciences Ethics Committee. Since data collection for this study was conducted before 1998, the University of
Toronto ethics department permitted the Sunnybrook review to be the only one. Prospective subjects were informed that their participation was not mandatory and that if they chose to take part, they could withdraw at any time. I explained the Informed Consent form and required the participants to complete it. A copy of the consent form is included in Appendix “A.”

Community Participants

The largest group from the community was recruited from among Business students attending a west Scarborough separate high school. One class was in Grade 9 and the other was a mixed class in Grade 12/13.

The principal was informed of the purpose and nature of the research in order to obtain approval to administer the study within the school setting. A result was that a condition of the students' participation was that certain musical selections be eliminated because of the controversial content of the lyrics. For the Grade 9 group, three selections were eliminated: Madonna's "Justify My Love", Niggaz wit Attitudes "F*** the Police", and LaTour's "People are Still Having Sex." For the Grade 12/13 class, only two selections were eliminated: N.W.A's "F*** tha Police" and LaTour's "People are Still Having Sex." While their teachers recognized that these songs were frequently broadcast on the radio where the students could be exposed to them, these selections were considered inappropriate for presentation during class time. The students participated
enthusiastically in the study, as it was a change from their usual class work and many students expressed interest both in the music and in the research process.

Another group of fifteen adolescents was recruited from two youth groups, one in a Brethren and one in a United Church. The leader of the Brethren youth group was present throughout the administration of the study that took place in her home. After hearing the songs, the leader and her husband both expressed some consternation about the lyrics and were surprised and perhaps dismayed to learn that the adolescents in the group were quite familiar with these selections. Although the United Church youth group convened in the church building, the leader expressed no views about the content or appropriateness of the various songs. None of the music selections was eliminated for either group. As with the clinical group, the young people were told that they could terminate their participation at any time although none chose to do so. All of the participants appeared to find the study interesting and many expressed enthusiasm about the experience.

Subjects were also recruited from community contacts from my neighbourhood and for these participants; the study was conducted in my home. The remaining subjects were recruited by friends who organized two groups of 10 adolescents each in their homes, both in the suburban Toronto area. Again, all prospective participants were told that they were free to withdraw at any time. At every
administration of the instruments, the researcher remained after the session was completed to listen to the participants’ comments and reactions.

I explained the consent form to all the community participants and asked them to complete the form. A copy of the consent form is included in Appendix “B.”

**Instrument Selection**

The instruments will be described in order of their administration to the participants. The psychometric properties from previous research will be presented as well as the psychometric properties found in this research. The participants were given a set of paper and pencil tests beginning with the Washington University Sentence Completion Test (“WUSCT”). The Walker Music Questionnaire (“WMQ”) was filled out next and embedded within the WMQ was the School Commitment Scale (“SCS”). The Beck Depression Inventory was filled out next. Lastly, the adolescents were given the Adolescence Semantic Differential Scales (“ASDS) as they listened to 10 pieces of popular music. As the administration of the instruments was done in groups, the participants were asked to do one test a time and wait until all the participants had completed that particular test before moving on to the next instrument.

*The Washington University Sentence Completion Test*

The instrument measures personality as indicated by the level of ego development (Loevinger & Wessler, 1970). This personality measure purports to
measure the psychosocial maturity of individuals and is based on the notion that each person has a frame of reference that systematically organizes his or her experience of self and other people (Borst & Noam, 1993). The WUSCT has been used in over 300 studies (Westenberg, Hauser & Cohn, 2004). It is a semi projective measure composed of 36 incomplete sentences. Respondents were requested to complete each stem and no additional instructions were given. The tests for both males and females are included in Appendix “C.” The only differences between the male and female forms are the appropriate pronoun for each gender (Manners & Durkin, 2001).

Each test was scored using the empirically based manual. Scoring the WUSCT was done in two steps. First, each subject’s responses to the 36-item sentence stems were individually assigned to one of the levels by matching them with response categories provided in the manual. Most of the stems were matched verbatim through the scoring manual but for those responses that could not be found, there were specific indicators to determine what level the response would be assigned. I did many hours of self-training exercises suggested by Hy and Loevinger (1996) in order to master the scoring procedure. Second, the distribution of item response ratings was converted into a single total protocol rating (TPR). There is an algorithm rule for converting the distribution of item response ratings into a single TPR provided in the scoring manual (Hy & Loevinger, 1996, pp. 38-39).
There are nine stages of development from E2 to E8. The E1 Presocial stage is part of the theoretical conceptualization but not part of the WUSCT scoring as it is described as applying to the newborn preverbal infant and thereby inaccessible to assessment. Most research has grouped the stages into three levels – Preconformist, Conformist, and Postconformist. The Preconformist level consists of the E2 Impulsive and E3 Self-Protective stages. The Conformist level consists of the E4 Conformist and E5 Self-Aware stages. The Postconformist consists of the E6 Conscientious, E7 Individualistic, E8 Autonomous, and E9 Integrated stages (Newman, Tellegen and Bouchard, 1998). Loevinger’s framework describes the movement from the immediate gratification of needs characteristic of the Preconformist stage of ego development, through an immersion in securing the acceptance of others as characteristic of the Conformist stage, to a growing awareness of complex individual differences and separateness characteristic of the Postconformist stage. Research with adolescents tends to have few subjects at the Postconformist level so some researchers combine the Conformist and Postconformist groups, which was done in the current research as there were only 7 adolescents found at this level (e.g. Isberg, Hauser, Jacobson, Powers, Noam, Weiss-Perry & Follansbee, 1989, Noam & Houlihan, 1990). Thus, in this study there are only two groups – the Preconformist group and the Combined group, which is the combination of the small group of Postconformist adolescents with the Conformist group.
Psychometric properties of the WUSCT reported in the literature have shown high levels of interrater reliability (e.g. Drewes & Westenberg, 2001; Gfellner, 1986; Weiss, Zilberg & Genevro, 1989; Westenberg & Gjerde, 1999), high levels of internal consistency (Loevinger, 1998; Loevinger & Wessler, 1970; Novy & Francis, 1992), and high test-retest reliability (Jurich & Holt, 1987). As well, a principal components analysis found only one major component, which also suggested the unity of the test (Westenberg, Hauser & Cohn, 2004). Clinical populations have also found good test-retest reliability, internal consistency (e.g., Weiss et al., 1989; Westenberg, Siebelink, Warmenhoven & Treffers, 1999). The WUSCT’s validity (construct, predictive, and discriminant) was extensively reviewed and found to be adequate (Hauser, 1976, 1993; Loevinger, 1979a, 1998; Manners & Durkin, 2001).

I sent 15% of the scored protocols to an expert rater recommended by Dr. Loevinger and we found the interrater reliability to be .83, which is considered a high level of reliability.

The Walker Music Questionnaire (WMQ)

I created the WMQ because of the lack of suitable instruments in the contemporary literature at the time. A copy of the WMQ can be found in Appendix “D.” The objective of the WMQ was to undertake a comprehensive exploration of the relevance of popular music to an adolescent population, both in terms of an individual's perception of personal significance of the music and the
significance intrinsic within the music itself. The WMQ was created to explore the various reasons why adolescents believe they listen to music and how they interpret the role that music plays in their lives. The WMQ consists of 47 questions on a seven-point Likert scale with one standing for strongly disagree and seven for strongly agree.

Listed below are some examples of the type of questions explored on the WMQ. These elements were identified from readings on adolescent development and musical preference (Albert, 1978, Child, 1965; Clarke, 1973; Frith, 1983; Gantz et al., 1978; Gold, 1987; Leming, 1987; Lewis, 1981; Roe, 1983; Rouner, 1990; Sinason, 1985; Wells, 1990).

- musical qualities (e.g., listening to lyrics, beat, tune, sound etc.),
- emotional responses (e.g., makes me happy, sad or lonely etc.),
- issues of identity (important aspect of identity, understands what a teenager is like, my friends and I like the same music etc.),
- fantasy (e.g., I daydream about my favourite band, I would love to be in a rock video),
- sexual issues (e.g., I like sexy music, etc.),
- expresses aggression (e.g., I like music that makes me feel angry, my favourite makes makes me feel aggressive etc.), and
- involvement with music videos (e.g., I watch videos more than other programs on television; videos express the meaning of the music etc.).
The reader will recall that in the early 1990s, video watching was a relatively new and engaging process. In 1991, Music Television (MTV) was reported to have 28 million subscribers and adding 1-3 million subscribers every year in the United States (Roger, 1999).

School Commitment Scale

The SCS consisted of seven items with a mean range of 1 for low commitment to 7 for high commitment to school. A copy of the scale is included in Appendix “E.” Murdock and Phelps (1973) developed the SCS to determine secondary students’ general orientation towards school, in particular, whether they actively enjoyed the experience of going to school and found it interesting. The results of their pilot studies indicated that this measure of school commitment was different from school achievement and captured among low scorers a sub-group of students who although they did well at school, did not enjoy being there and were not interested in school activities.

The authors conducted a principal component analysis of the SCS that indicated that all the items loaded highly on the first component. Therefore they concluded that the scale was uni-dimensional, demonstrated face validity, and measured school commitment. The reliability of the scale used in the research of Murdock and Phelps (1973) was not stated in their book. The Cronbach’s alpha computed for the current study was .74, which is an adequate measure of reliability for a 7 item-scale.
Beck Depression Inventory

The Beck Depression Inventory (BDI) is a reliable standardized paper and pencil test measuring depression (Beck, Ward, Mendelson, Mock, & Erbaugh, 1961). The BDI is one of the most utilized instruments for assessing depression in both normal and psychiatrically diagnosed populations (Beck, Steer & Garbin, 1988). The BDI has 21-items scored on a 4-point scale, indicating the presence or absence and severity of depressed feelings and behaviours, and symptoms (Field, 1998). When the test is scored, a value of 0 to 3 is assigned each answer and the total is compared to determine the level of depression. Total scores range from 0 to 63, with higher scores indicative of greater severity of self-reported distress. The cut-off score implemented in this study was 16 or over (e.g. Marcotte, 1999; Marcotte, Fortin, Potvin, Papillon, 2002).

The adolescents in this study were asked to select the statement on the BDI which best described their attitude for each item for the past week. The psychiatrically ill group of adolescents were not administered this test because, for most of them, it had already been completed as part of their intake assessment when they entered the hospital and I did not have access to the test scores. The group that emerged with 16 or above on the BDI comprises the third group of adolescents that was used in this study and has been named the “depressed group.”
Beck and colleagues (1988) in their overview of 25 years of research of over 1,000 studies using the BDI found strong support for the psychometric properties of the BDI. They presented the reliability of the BDI in terms of the internal consistency and stability. They found in a meta-analysis of the BDI's internal consistency, a mean coefficient alpha of .081 for non-psychiatric subjects and a mean coefficient alpha of 0.86 for psychiatric patients. Furthermore, Beck and colleagues (1988) also found substantial stability over a one-week period for both psychiatric and non-psychiatric patients thus demonstrating strong reliability as well as support for concurrent and construct validity.

*Adolescent Semantic Differential Scales (ASDS)*

The ASDS included many of the standard adjectives suggested by Osgood, Succi and Tannenbaum (1957) in their seminal work on the semantic differential scales. In addition, I added eight adjective pairs that I thought were relevant to adolescent development and so I named this instrument the ASDS to differentiate it from the work of Osgood and colleagues. The adjectives added were: sexy/not sexy; meaningful/not meaningful; moral issues/ not moral issues; violent/not violent; romantic/not romantic; passionate/not passionate; fantasy/not fantasy; nostalgic/not nostalgic. The ASDS is included in Appendix “F.” For the analysis, ratings were reversed so that for all adjective pairs a high number reflected a positive attitude.
The participants listened to 10 pieces of popular music and were asked to place a mark in the space, which corresponded best to their experience of the music they heard. Analysis of semantic differential data, usually involves conversion of results to numbers that are then treated either as either Likert-like scaling results or as input for factor analytic procedures. I used the factor analytic procedure and a detailed description of the factor analysis follows in section 2.05 later in this chapter.

**Music Selections**

Three key informants in the music industry were consulted in the selection of these representative 10 pieces of popular music both for advice in identifying themes and assigning categories: Mr. Darrell Brad, Musical Consultant at CFNY (or currently known as the Edge) Radio Station; Mr. Barry Stewart, Music Director at CHUM-FM and CHUM-AM Radio Stations; and Ms. Terry Walsh, Associate Producer for the Power Hour on Much Music Television. In consultation with the three key informants, I decided on five genres of popular music – rap, pop/dance, heavy metal, classic rock (60-70s), and alternative music.

The music pieces were derived from popular music based on several criteria. First, the songs reflected the five genres of popular music described above. Second, the songs were chosen to reflect a range of adolescent themes or issues of romance, aggression, fantasy, moral issues, and sexual content. The adolescents were asked to listen to the 10 pieces of music for 30 seconds and
place a mark in the space, which corresponded best to their experience of the
music on the bipolar adjectives. The two pieces of music thought to reflect
romantic issues were Sinéad O'Connor's song “Nothing Compares 2 U” and
Paula Abdul's song “Rush Rush.” Sinéad O'Connor's song belongs to the
alternative category and Paula Abdul's song to the pop/dance category. The
next two songs were chosen to reflect violent/aggression issues were N.W.A
(Niggaz with Attitudes)'s song “F*** tha Police” and Incantation's “Entrantment of
Evil.” These two songs were from the rap and heavy metal categories
respectively. The two pieces of music chosen to reflect fantasy were David
Bowie's “Space Oddity” and The Moody Blues's “Nights in White Satin.” Both of
these songs are from the classic rock (60-70s) category. The songs chosen to
reflect sexual issues were Madonna's song “Justify My Love” and LaTour's
“People are Still Having Sex.” Madonna's song falls under the pop/ dance genre
whereas LaTour's falls under the alternative genre. Finally, the two pieces of
music chosen to reflect moral issues were M.C. Hammer's song “Pray” and
Crystal Water's song “Homeless.” A list of all songs and lyrics is included in
Appendix “G.”

Relationship Among Domains
Canonical correlations will be performed on the WMQ factors, the ASDS factors
and the music preference ratings.
Factor Analyses

Factor analysis was used to analyze the two music measures, namely, the WMQ and ASDS. The specific goal in both of these analyses was to summarize patterns of correlations among the variables in order to reduce a large number of observed variables to a smaller number of factors.

In the case of the WMQ, the factor analysis was to determine whether the 47 questions (excluding the questions related to the SCS) had variables in common and what these factors were in terms of the role music plays for adolescents.

The ASDS was based on a long tradition of aesthetic research utilizing the semantic differential technique in conjunction with factor analyses, which is an integral part of the process (Miller, 1990; Schubert & Fabian, 2006). It was expected that the three factors of Evaluative, Potency, and Activity would be found as is customary in this area of research (Osgood et al., 1957). The semantic differential technique has been found in music research to measure the emotional responses of the participants (e.g. Coffman, Gfeller, Eckert, 1995; Gfeller & Coffman, 1991; Gray & Wheeler, 1967; Nielzen & Cesarec, 1981; Nordenstreng, 1968).

Walker Music Questionnaire (1992)

The dimensionality of the WMQ was analyzed using a principal components analysis, loadings from which are shown in Table 3 below. Two criteria were
used to determine the number of factors: the scree plot and the interpretability of
the factor solution. The scree plot indicated that the hypothesis of
unidimensionality was incorrect. Based on the scree plot, five factors were
retained. The factors were labelled as Introspection, Identity-Music, Discerning
Music Identity, Fantasy-Rebellion, and Identity-Self. For use in the analyses
reported in Chapter 5, factor scores were computed. Items were first separated
into sets based on the analysis described above. Then principal components
analyses were conducted separately for each set of items, and scores from the
first components were used. This allowed correlations to emerge among the
dimensions of the WMQ.
### Table 3

#### Factors from the Walker Music Questionnaire

<table>
<thead>
<tr>
<th></th>
<th>Factor 1</th>
<th>Factor 2</th>
<th>Factor 3</th>
<th>Factor 4</th>
<th>Factor 5</th>
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<tbody>
<tr>
<td></td>
<td>Introspection</td>
<td>Identity-Music</td>
<td>Discerning Music Identity</td>
<td>Fantasy-Rebellion</td>
<td>Identity-Self</td>
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<td>.01</td>
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<td>.01</td>
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<td>.47</td>
<td>.48</td>
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<td>Q#38</td>
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<td>.02</td>
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<td>Q#45</td>
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<td>.30</td>
<td>.27</td>
<td>.46</td>
<td>.17</td>
<td>.38</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Eigenvalue</th>
<th>Percentage of Variance</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Factor 1</td>
<td>5.75</td>
<td>16.92</td>
<td>16.92</td>
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<tr>
<td>Factor 2</td>
<td>2.63</td>
<td>7.74</td>
<td>24.67</td>
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<td>Factor 3</td>
<td>2.37</td>
<td>6.97</td>
<td>31.63</td>
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<td>Factor 4</td>
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<td>Factor 5</td>
<td>1.78</td>
<td>5.25</td>
<td>42.23</td>
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</tbody>
</table>
A description of each factor will be presented with a description of the questions/states that factored at .35 or above. Factors are listed from highest to lowest loading.

**Factor 1 – Introspection**

<table>
<thead>
<tr>
<th>Question</th>
<th>Factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q#29 I like music that reflects teenagers lives</td>
<td>.74</td>
</tr>
<tr>
<td>Q#20 I like music that makes me feel sad and lonely</td>
<td>.72</td>
</tr>
<tr>
<td>Q#31 I like music that expresses how I feel</td>
<td>.61</td>
</tr>
<tr>
<td>Q# 9 Music has a strong influence on my moral values</td>
<td>.60</td>
</tr>
<tr>
<td>Q#14 I learnt about love and relationships through music</td>
<td>.49</td>
</tr>
<tr>
<td>Q#18 I have my favourite bands and listen only to them</td>
<td>-.42</td>
</tr>
<tr>
<td>Q#21 I listen to the radio more than 5 hours per week</td>
<td>.35</td>
</tr>
</tbody>
</table>

Factor 1 has been labeled Introspection and is defined as the internal musings of the adolescent on music and their sense of self/identity. High scores on this factor seem to suggest evaluations on how music reflects an adolescent's life, expresses emotions, and teaches him/her about morals and relationships.

**Factor 2 – Identity-Music**

<table>
<thead>
<tr>
<th>Question</th>
<th>Factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q#41 Music videos express meaning</td>
<td>.68</td>
</tr>
<tr>
<td>Q#35 I like videos that are energetic and have lots of physical contact</td>
<td>.57</td>
</tr>
<tr>
<td>Q#19 Best part of music is the sound or beat</td>
<td>.53</td>
</tr>
<tr>
<td>Q#46 My favourite music makes me happy</td>
<td>.53</td>
</tr>
<tr>
<td>Q# 8 What gets my attention is the tune</td>
<td>.51</td>
</tr>
<tr>
<td>Q#27 I like same music as others in neighbourhood/school</td>
<td>.45</td>
</tr>
<tr>
<td>Q#23 My friends and I like the same music</td>
<td>.44</td>
</tr>
<tr>
<td>Q#21 I listen to the radio more than 5 hours per week</td>
<td>.42</td>
</tr>
<tr>
<td>Q#24 I can predict music preference by how other adolescents look</td>
<td>.41</td>
</tr>
</tbody>
</table>

Factor 2 has been labelled Identity-Music and is defined as the musical qualities and aspects of identity being important reasons for liking music. High scores on this factor seem to suggest that the tune/beat/sound were important as well as it
being the same music listened to by one’s friends and others in one’s

neighbourhood or school.

**Factor 3 – Discerning Music Identity**

- Q#45 Daydream over 50% of time over favourite Band members: .66
- Q#25 Favourite part of music is the artist: .64
- Q#15 I read the lyrics: .56
- Q#34 Listen to music at least 10 hours per week: .48
- Q#38 Watch music videos more than 5 hours per week: .48
- Q#37 Being a rock star will be thrilling and glamorous: .47
- Q#47 Music is an important part of my identity: .46
- Q#17 Music should not make a political statement: - .35

Factor 3 was labeled Discerning Music Identity because it reflects, like all of the factors, questions related to identity, but differed in the inclusion of several questions pertaining to the adolescents’ favourite bands or artist and music videos. High scores on this factor seem to indicate a standard/rigid music taste and a value that music is an important part of one’s identity.

**Factor 4 – Fantasy-Rebellion**

- Q#42 The most exciting music makes me angry: .59
- Q# 6 I would love to be in a rock video: .56
- Q#11 My favourite makes feel aggressive: .55
- Q#24 I can predict others music preference by how they look: .48
- Q#37 Being a rock star would be glamorous and thrilling: .48
- Q#34 I listen to music at least 10 hours per week: -.43
- Q# 7 My favourite music makes me feel sexy: .40
- Q# 1 Lyrics are the most important part of music: -.37

Factor 4 was labeled Fantasy-Rebellion and is defined this way because of its expression of music enjoyment that related to rebellion and fantasy aspects.

High scores on this factor seem to indicate evaluations of oneself identifying with
the fantasy of being a rock star and liking music that makes one feel
angry/aggressive and sexy.

**Factor 5 – Identity-Self**

Q#33 Music reflects who I am .55
Q# 1 Lyrics are the most important part of a song .53
Q# 4 Need to dance to a song before listen again -.48
Q#17 Music should not make a political statement -.46
Q#27 I like music same as others at school/neighbourhood -.38
Q#47 Music is an important part of my identity .38
Q#13 Know music preference by what others wear .37

The fifth factor was labeled Identity-Self because this factor represents music's role in developing a sense of self. High scores on this factor seem to indicate evaluations of oneself and using music to reflect one’s sense of self and being able to predict other adolescents’ music preference by what they wear.

A few questions were found to load on multiple factors on the WMQ.

Q#17  Discern. Identity – -.35  Identity-Self – -.46
Q#24  Identity-Music – .41  Fantasy/Rebellion – .48
Q#27  Identity-Music – .45  Identity-Self – -.38
Q#37  Discern. Identity – .47  Fantasy/Rebellion – .48
Q#47  Discern. Identity – .46  Identity-Self – .38

The main purpose of the WMQ was to explore the role that music plays for adolescents and reasons why adolescents report they listen to music. The five factors found appear to be useful ways of understanding these questions; examination of the items indicates a high level of face validity for these factors. In addition, some of the results reported in Chapter 5 suggest considerable consequential validity.
Adolescent Semantic Differential Scales

The dimensionality of the 29 items from the ASDS was analyzed on the data set including ratings of all songs by all respondents using a principal components analysis. It was expected that three dimensions would be found given the theoretical framework of the semantic differential (Osgood, et al, 1957). Based on the scree plot, three factors were retained and rotated using a varimax rotation procedure as recommended by Osgood and his colleagues (1957). The rotated solution, as shown in Table 4 (shown below) yielded three interpretable factors loading at .35. Factor scores were used that were derived from the principal component analysis as the variables. Two factors (Evaluative and Potency) are usually found on these scales (Osgood et al, 1957) whereas the Romance factor is unique to the ASDS utilized for this research. Tekman and Hortacsu (2002) reported in their research reliability coefficients for each factor of the factors - Evaluative - .79, Activity - .86, Peacefulness - .74. They also found convergence with other data on the three factors they found (Osgood et al. 1957, Watt & Ash, 1998; Wedin, 1972).

Construct and content validity were demonstrated by the duplication of the standard two factors.
### Table 4

*Factors from the Adolescent Semantic Differential Scales*

<table>
<thead>
<tr>
<th>Variable</th>
<th>Evaluative</th>
<th>Romance</th>
<th>Potency</th>
</tr>
</thead>
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<tr>
<td>Meaningful</td>
<td>.79</td>
<td>.23</td>
<td>-.10</td>
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<tr>
<td>Real</td>
<td>.77</td>
<td>.10</td>
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</tr>
<tr>
<td>Good</td>
<td>.74</td>
<td>.46</td>
<td>.02</td>
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<tr>
<td>Honest</td>
<td>.72</td>
<td>.09</td>
<td>-.21</td>
</tr>
<tr>
<td>Sincere</td>
<td>.72</td>
<td>.30</td>
<td>-.20</td>
</tr>
<tr>
<td>Moral Issues</td>
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<td>-.10</td>
<td>-.04</td>
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<tr>
<td>Pleasing</td>
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<td>.48</td>
<td>.02</td>
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<tr>
<td>Serious</td>
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<td>-.17</td>
<td>-.03</td>
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<tr>
<td>Interesting</td>
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<td>.48</td>
<td>.13</td>
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<tr>
<td>Appealing</td>
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<td>.53</td>
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</tr>
<tr>
<td>Clear</td>
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<td>.38</td>
<td>-.25</td>
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<td>Profound</td>
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<td>.13</td>
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<td>Emotional</td>
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<td>.47</td>
<td>-.13</td>
</tr>
<tr>
<td>Powerful</td>
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<td>.15</td>
<td>.53</td>
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<tr>
<td>Stimulating</td>
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<td>.55</td>
<td>.20</td>
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<td>Familiar</td>
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<td>.36</td>
<td>-.10</td>
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<td>Violence</td>
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<td>-.15</td>
<td>.62</td>
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<td>Passionate</td>
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<td>-.19</td>
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<td>Impulsive</td>
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<td>Romantic</td>
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<td>-.28</td>
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<td>Dominant</td>
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<td>.03</td>
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<td>Sexy</td>
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<td>.75</td>
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<td>Happy</td>
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<td>.09</td>
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<td>.03</td>
<td>-.19</td>
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<td>Dreamy</td>
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<td>.65</td>
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<tr>
<td>Active</td>
<td>.01</td>
<td>-.11</td>
<td>.52</td>
</tr>
</tbody>
</table>

The following items were found to load on more than one factor.

- Good          | Evaluative - .74 | Romance - .46 |
- Pleasing      | Evaluative - .67 | Romance - .48 |
- Interesting   | Evaluative - .65 | Romance - .48 |
- Appealing     | Evaluative - .63 | Romance - .53 |
- Clear         | Evaluative - .61 | Romance - .38 |
- Emotional     | Evaluative - .58 | Romance - .47 |
- Powerful      | Evaluative - .54 | Potency - .53 |
- Stimulating   | Evaluative - .54 | Romance - .55 |
- Passionate    | Evaluative - .42 | Romance - .68 |
Music Preference

Music preference was determined from the ASDS selecting two adjectives of the bipolar adjectives (good – bad, pleasing-displeasing) by taking the mean rating of these two adjectives for each song. Face validity is demonstrated by the adjectives looking like they measure what they are meant to measure.

Summary

In summary, the purpose of this study was to explore the meaning and role music plays for a depressed, psychiatrically ill, and non-clinical sample of adolescents with the assumption that the three groups would experience and find different meaning for music in their lives. Two measures were utilized to explore musical meaning for these groups of adolescents and were the Walker Music Questionnaire and the Adolescent Semantic Differential Scales.
Chapter 5

RESULTS

Introduction

The central question explored in this research is whether three groups of adolescents differed on the role of popular music in their lives and in their emotional reactions to music. The three groups of adolescents consisted of 72 (56%) non-clinical, 33 (26%) hospital-based psychiatrically ill and 21 (16%) community-based depressed. The Walker Music Questionnaire (WMQ) 1992 surveyed the adolescents on the role of popular music and the Adolescent Semantic Differential Scales (ASDS) measured their emotional response to 10 pieces of popular music. Within each music measure, the three groups were simultaneously examined on gender, age, personality, and level of school commitment to determine whether these variables also impacted on their experience and meaning of music in their lives. The three groups of adolescents were also compared on their music preference responses. Lastly, the relationship between the WMQ and ASDS factors and music preference ratings were explored.

This chapter begins with a MANOVA to test for the differences among the three groups of adolescents by psychological health simultaneously for the five WMQ factors (Introspection, Identity-Music, Discerning Music Identity, Fantasy-Rebellion, Identity-Self). Since there was clear evidence of a difference, the
effect was followed up with five univariate tests and post hoc tests for the
relationship between psychological health and WMQ factors. The factors that
were found meaningful were examined using a multiple regression with the
variables of School Commitment, Gender, Age Group, and Personality. Next
follows a similar MANOVA examination using the ASDS factors of Evaluative,
Romance, and Potency by the three adolescent groups. It was also followed by
a Multivariate regression on the ASDS factors with Psychological Health, School
Commitment, Gender, Age Group, and Personality. The ones that were found
significant were examined using post hoc tests. The last section of this chapter
presents the one-way multivariate analysis of variance among the three groups of
adolescents simultaneously for the 10 music preference ratings. This analysis
was followed by a multivariate regression on music preference ratings for School
Commitment, Gender, Age Group, and Personality.

The analyses of the two sets of factor scores and 10 music preference ratings
were carried out with identical steps. First, a one-way multivariate analysis of
variance (MANOVA) was conducted with the factor scores as dependent and
psychological health as the grouping factor. When this step yielded significance,
separate univariate ANOVAs on the individual variables followed, in order to
discover which were significantly affected by psychological health. Pair-wise
comparisons with Bonferroni comparisons located pairs of means that were
significantly different.
To control for the effects of demographic and personal variables of age group, school commitment, gender, and psychosocial maturity, a multivariate multiple regression was run with psychological health plus these variables as predictors and the factor scores as dependent. This step established whether psychological health was a significant predictor of the outcomes independent of the demographic and personal variables. If the multivariate regression was significant, follow-up univariate multiple regressions were run.

Finally, in order to assess the relationship among these three measurement domains canonical correlations were performed among the WMQ factors, the ASDS factors, and the music preference ratings.

**Psychological Health and the WMQ Factors**

A MANOVA was used to test for differences among psychological health groups simultaneously on the five WMQ factors. There was clear evidence of difference (Wilks' Lambda = 0.66; F = 4.82, df = 10, 208; p < 0.0001). In order to locate the difference, this analysis was followed up with five univariate one-way ANOVAs, with Bonferroni-corrected pairwise comparisons between group means. The results are shown in Table 5.
Table 5

**MANOVA by Psychological Health on the Walker Music Questionnaire Factors**

<table>
<thead>
<tr>
<th>Factor</th>
<th>Tests for Group Differences</th>
<th>Mean Factor Score</th>
<th>Bonferroni-corrected p-values</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F (df=2,108)</td>
<td>p-value</td>
<td>Psych-II (1)</td>
</tr>
<tr>
<td>Introspection</td>
<td>9.47</td>
<td>0.001***</td>
<td>-0.07</td>
</tr>
<tr>
<td>Identity-Music</td>
<td>5.36</td>
<td>0.01**</td>
<td>-0.19</td>
</tr>
<tr>
<td>Discerning Music Identity</td>
<td>1.33</td>
<td>0.27</td>
<td>0.17</td>
</tr>
<tr>
<td>Fantasy-Rebellion</td>
<td>1.96</td>
<td>0.15</td>
<td>-0.06</td>
</tr>
<tr>
<td>Identity-Self</td>
<td>2.34</td>
<td>0.10</td>
<td>-0.36</td>
</tr>
</tbody>
</table>

*p<.05, **p<.01, ***p<.001

Psychological health was univariately significant only on the Introspection and Identity/Music factors. Post-hoc tests showed that the depressed group was significantly higher on Introspection than the non-clinical and psychiatrically ill respondents; while the depressed group was significantly higher than both of the other two groups on the Identity/Music factor.
Table 6

*Multivariate Regression on the Walker Music Questionnaire Factors, with Each Predictor Corrected for the Other Variables*

<table>
<thead>
<tr>
<th>Predictor</th>
<th>Wilks' Lambda</th>
<th>F</th>
<th>Degrees of Freedom</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Psychological Health</td>
<td>0.66</td>
<td>4.64</td>
<td>10, 198</td>
<td>0.001***</td>
</tr>
<tr>
<td>School Commitment</td>
<td>0.78</td>
<td>5.58</td>
<td>5, 99</td>
<td>0.001***</td>
</tr>
<tr>
<td>Gender</td>
<td>0.95</td>
<td>1.05</td>
<td>5, 99</td>
<td>0.40</td>
</tr>
<tr>
<td>Age Group</td>
<td>0.83</td>
<td>1.99</td>
<td>10, 198</td>
<td>0.04*</td>
</tr>
<tr>
<td>Personality</td>
<td>0.89</td>
<td>2.38</td>
<td>5, 99</td>
<td>0.04*</td>
</tr>
</tbody>
</table>

*p<.05, **p<.01, ***p<.001

Because the predictor variables were correlated, a multiple multivariate regression was carried out, using dummy variables for the four categorical variables (Psychological Health, Gender, Age Group, Personality and entering School Commitment as a continuous predictor. The dependent variable set comprised the five WMQ factors. That all the predictors but gender were significant as shown in Table 6, indicates that the significant prediction of each of these four was independent of the other factors. Thus, in terms of the main research question, psychological health was a multivariate predictor of the WMQ factors, independent of the other predictors.
Table 7

Univariate Regression Tests and Post hoc Tests for the Relationship between Psychological Health and Walker Music Questionnaire Factors, Corrected for the Other Variables

<table>
<thead>
<tr>
<th>Factor</th>
<th>Tests for Group Differences</th>
<th>Corrected Mean Factor Score</th>
<th>Bonferroni-corrected p-Values</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F (df=2,103)</td>
<td>p-value</td>
<td>Psych-III (1)</td>
</tr>
<tr>
<td>Introspection</td>
<td>8.89</td>
<td>0.001***</td>
<td>-0.04</td>
</tr>
<tr>
<td>Identity-Music</td>
<td>4.12</td>
<td>0.02*</td>
<td>-0.27</td>
</tr>
<tr>
<td>Discerning Music Identity</td>
<td>1.81</td>
<td>0.17</td>
<td>0.21</td>
</tr>
<tr>
<td>Fantasy-Rebellion</td>
<td>1.62</td>
<td>0.20</td>
<td>0.01</td>
</tr>
<tr>
<td>Identity-Self</td>
<td>2.24</td>
<td>0.11</td>
<td>-0.47</td>
</tr>
</tbody>
</table>

*p<.05, **p<.01, ***p<.001

Even co-varying out the effects of the other predictors, there is a significant effect of psychological health on Introspection and Identity-Music. The post-hoc results are similar although the difference between psychiatrically ill and depressed now just approaches significance.
Table 8

*Univariate Tests for the Relationship between School Commitment and the Walker Music Questionnaire Factors, Corrected for the Other Variables*

<table>
<thead>
<tr>
<th>Factor</th>
<th>Regression Coefficient</th>
<th>t (df = 13)</th>
<th>Two-sided P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introspection</td>
<td>0.05</td>
<td>0.70</td>
<td>0.49</td>
</tr>
<tr>
<td>Identity-Music</td>
<td>-0.24</td>
<td>-3.15</td>
<td>0.0021***</td>
</tr>
<tr>
<td>Discerning Music</td>
<td>-0.32</td>
<td>-4.22</td>
<td>0.0001***</td>
</tr>
<tr>
<td>Identity-      Identity</td>
<td>-0.23</td>
<td>-2.92</td>
<td>0.0043**</td>
</tr>
<tr>
<td>Fantasy-Rebellion</td>
<td>-0.10</td>
<td>-1.29</td>
<td>0.20</td>
</tr>
</tbody>
</table>

*p<.05, **p<.01, ***p<.001

The post hoc tests found that the adolescents with a low level of school commitment obtained significantly higher means on three factors from the WMQ (Discerning Music Identity, Identity-Music, Fantasy-Rebellion). Table 8 shows the univariate regressions testing the relationship of School Commitment to each of the WMQ factors. Negative regression coefficients indicate a negative relationship between School Commitment and the factor --- that is, higher School Commitment tends to go with a lower factor score, and lower School Commitment tends to go with a higher factor score.
Table 9

*Univariate Regression Tests and Post hoc Tests for the Relationship between Age Group and the Walker Music Questionnaire Factors, Corrected for the Other Variables*

<table>
<thead>
<tr>
<th>Factor</th>
<th>Tests for Group Differences</th>
<th>Corrected Mean Factor Score</th>
<th>Bonferroni-corrected p-values</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F (df=2,103)</td>
<td>p-value</td>
<td>12-14 (1)</td>
</tr>
<tr>
<td>Introspection</td>
<td>0.81</td>
<td>0.45</td>
<td>-0.16</td>
</tr>
<tr>
<td>Identity-Music</td>
<td>1.41</td>
<td>0.25</td>
<td>-0.26</td>
</tr>
<tr>
<td>Discerning Music Identity</td>
<td>1.24</td>
<td>0.29</td>
<td>0.24</td>
</tr>
<tr>
<td>Fantasy-Rebellion</td>
<td>1.03</td>
<td>0.36</td>
<td>0.22</td>
</tr>
<tr>
<td>Identity-Self</td>
<td>2.76</td>
<td>0.07</td>
<td>-0.65</td>
</tr>
</tbody>
</table>

*p<.05, **p<.01, ***p<.001

The post hoc tests found that the adolescents by Age Group were not significant on the five factors from the WMQ despite appearing to be significant on the MANOVA.
Table 10

Univariate Tests and Post hoc Tests for the Relationship between Personality and Walker Music Questionnaire Factors, Corrected for Other Variables

<table>
<thead>
<tr>
<th>Factor</th>
<th>F (df=1, 103)</th>
<th>p-value</th>
<th>Combined</th>
<th>Preconformist</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introspection</td>
<td>7.12</td>
<td>0.01**</td>
<td>0.31</td>
<td>-0.18</td>
</tr>
<tr>
<td>Identity-Music</td>
<td>4.14</td>
<td>0.05*</td>
<td>0.16</td>
<td>-0.22</td>
</tr>
<tr>
<td>Discerning Music</td>
<td>2.48</td>
<td>0.12</td>
<td>0.22</td>
<td>-0.08</td>
</tr>
<tr>
<td>Identity</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fantasy-Rebellion</td>
<td>0.79</td>
<td>0.38</td>
<td>0.20</td>
<td>0.02</td>
</tr>
<tr>
<td>Identity-Self</td>
<td>0.11</td>
<td>0.74</td>
<td>-0.26</td>
<td>-0.32</td>
</tr>
</tbody>
</table>

*p<.05, **p<.01, ***p<.001

The post hoc tests found that the Combined adolescents obtained significantly higher means on two factors from the WMQ (Introspection and Identity/Music).

Psychological Health and the ASDS Factors

A one-way multivariate analysis of variance was used to test for differences among psychological health groups simultaneously for the three ASDS factors. There was clear evidence of a difference (Wilks' Lambda = 0.86; F = 3.05, df = 6, 234; p = 0.0068). This analysis was followed up with three univariate one-way ANOVAs, which were in turn explored with Bonferroni-corrected pairwise comparisons between group means. The results are shown in Table 11.
Table 11

Univariate Tests and Post hoc Tests for the Relationship between Psychological Health and the Adolescent Semantic Differential Scales Factors

<table>
<thead>
<tr>
<th>Factor</th>
<th>F (df=2,108)</th>
<th>p-value</th>
<th>Psych-III (1)</th>
<th>Depressed (2)</th>
<th>Non-Clinical (3)</th>
<th>Bonferroni-corrected p-Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Evaluative</td>
<td>0.48</td>
<td>0.62</td>
<td>-0.05</td>
<td>0.08</td>
<td>0.01</td>
<td>0.98 1.00 1.00</td>
</tr>
<tr>
<td>Romance</td>
<td>5.36</td>
<td>0.01**</td>
<td>0.17</td>
<td>-0.11</td>
<td>0.10</td>
<td>1.00 0.01** 0.13</td>
</tr>
<tr>
<td>Potency</td>
<td>4.38</td>
<td>0.02*</td>
<td>0.17</td>
<td>-0.11</td>
<td>0.67</td>
<td>1.00 0.02* 0.36</td>
</tr>
</tbody>
</table>

*p<.05, **p<.01, ***p<.001

The psychiatrically ill adolescents had significant higher means on both the Romance and Potency factors than the depressed group of adolescents.

To determine whether the differences among psychological health groups were still present and meaningful allowing for other background variables, a multiple multivariate regression with dummy variables was used to test each of the following variables correcting for all the others: Psychological Health, School Commitment, Gender, Age Group, and Personality. Table 12 summarizes the multivariate tests on all three ASDS factors simultaneously.
Table 12

*Multivariate Regression on the Adolescent Semantic Differential Scales Factors, with Each Predictor Corrected for the Other Variables*

<table>
<thead>
<tr>
<th>Predictor</th>
<th>Wilks' Lambda</th>
<th>F</th>
<th>Degrees of Freedom</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Psychological Health</td>
<td>0.86</td>
<td>2.88</td>
<td>6, 218</td>
<td>0.01**</td>
</tr>
<tr>
<td>School Commitment</td>
<td>0.99</td>
<td>0.34</td>
<td>3, 109</td>
<td>0.79</td>
</tr>
<tr>
<td>Gender</td>
<td>0.96</td>
<td>1.59</td>
<td>3, 109</td>
<td>0.20</td>
</tr>
<tr>
<td>Age Group</td>
<td>0.91</td>
<td>1.77</td>
<td>6, 218</td>
<td>0.11</td>
</tr>
<tr>
<td>Personality</td>
<td>0.85</td>
<td>6.41</td>
<td>3, 109</td>
<td>0.001***</td>
</tr>
</tbody>
</table>

*p<.05, **p<.01, ***p<.001

Psychological Health is related to the ASDS factors, even controlling for other variables. Table 13 follows up with tests based on three univariate regressions (equivalent to analyses of covariance) with all predictors entered simultaneously. This table is similar in format to Table 11, except that it shows and tests mean factor scores corrected for the other variables. It shows that psychological health is a significant predictor of the three ASDS factors even when the effects of the other four predictors are partialled out. Personality is also a significant predictor.
Table 13

Univariate Tests and Post hoc Tests for the Relationship between Psychological Health and the Adolescent Semantic Differential Scales Factors, Corrected for the Other Variables

<table>
<thead>
<tr>
<th>Factor</th>
<th>Tests for Group Differences</th>
<th>Corrected Mean Factor Score</th>
<th>Bonferroni-corrected p-Values</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F (df=2,108)</td>
<td>p-value</td>
<td>Psych-III (1)</td>
</tr>
<tr>
<td>Evaluative</td>
<td>0.38</td>
<td>0.69</td>
<td>-0.12</td>
</tr>
<tr>
<td>Romance</td>
<td>4.96</td>
<td>0.01**</td>
<td>0.14</td>
</tr>
<tr>
<td>Potency</td>
<td>4.44</td>
<td>0.01**</td>
<td>0.16</td>
</tr>
</tbody>
</table>

*p<.05, **p<.01, ***p<.001

Psychological health was univariately significant in the presence of the other predictors only for the Romance and Potency factors. Post hoc tests showed that the psychiatrically ill group was significantly higher on the Semantic Differential factors of Romance and Potency than the non-clinical respondents. The differences between psychiatrically ill and depressed disappeared when the other predictors were controlled.

Level of Personality is related to the ASDS factors, even controlling for other variables. Table 14 follows up with tests based on three univariate regressions (equivalent to analyses of covariance). This table shows and tests mean factor scores corrected for the other variables.
Table 14

Univariate Tests for the Relationship between Personality and the Adolescent Semantic Differential Scales Factors, Corrected for the Other Variables

<table>
<thead>
<tr>
<th>Factor</th>
<th>Tests for Group Difference</th>
<th>Corrected Mean Factor Score</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F (df=1, 111)</td>
<td>p-value</td>
</tr>
<tr>
<td>Evaluative</td>
<td>12.17</td>
<td>0.0007***</td>
</tr>
<tr>
<td>Romance</td>
<td>3.05</td>
<td>0.0837</td>
</tr>
<tr>
<td>Potency</td>
<td>16.27</td>
<td>0.0001***</td>
</tr>
</tbody>
</table>

*p<.05, **p<.01, ***p<.001

Music Preference by Psychological Health

A MANOVA was used to test for differences among psychological health groups simultaneously for the 10 music preference ratings. Differences among the three groups were non-significant (Wilks’ Lambda = 0.6633; F = 1.00, df = 20, 88; p = 0.4680), so no univariate follow-up tests were carried out and no means will be reported.

To investigate whether there were differences among the three groups of adolescents allowing for other background variables, a multiple regression with dummy variables was used to test each of the following variables correcting for all the others: Psychological Health, School Commitment, Gender, Age Group, and Personality. Table 15 summarizes the multivariate tests on all 10 music preference ratings simultaneously.
Table 15

Multivariate Regression on Music Preference Ratings, with Each Predictor Corrected for all the Others

<table>
<thead>
<tr>
<th>Predictor</th>
<th>Wilks' Lambda</th>
<th>F</th>
<th>Degrees of Freedom</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Psychological Health</td>
<td>0.53</td>
<td>1.44</td>
<td>20, 76</td>
<td>0.13</td>
</tr>
<tr>
<td>School Commitment</td>
<td>0.74</td>
<td>1.37</td>
<td>10, 38</td>
<td>0.23</td>
</tr>
<tr>
<td>Gender</td>
<td>0.73</td>
<td>1.39</td>
<td>10, 38</td>
<td>0.22</td>
</tr>
<tr>
<td>Age Group</td>
<td>0.33</td>
<td>2.81</td>
<td>20, 76</td>
<td>0.001***</td>
</tr>
<tr>
<td>Personality</td>
<td>0.66</td>
<td>1.92</td>
<td>10, 38</td>
<td>0.07</td>
</tr>
</tbody>
</table>

*p<.05, **p<.01, ***p<.001

The only variable to show a significant relationship with Music Preference in Table 15 was Age Group. Table 16 follows up with tests basted on 10 univariate regressions (equivalent to analyses of covariance). It also shows mean preference corrected for the other predictor variables, and Bonferroni pairwise post hoc comparisons between corrected means.
### Table 16

**Univariate Tests and Post hoc Tests for the Relationship between Age Group and Music Preference, Corrected for the Other Variables**

<table>
<thead>
<tr>
<th>Artist</th>
<th>Tests for Group Differences</th>
<th>Corrected Mean Preference</th>
<th>Bonferroni-corrected p-values</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F (df=2, 47)</td>
<td>p-value</td>
<td>12-14 (1)</td>
</tr>
<tr>
<td>MC Hammer</td>
<td>1.18</td>
<td>0.32</td>
<td>4.79</td>
</tr>
<tr>
<td>David Bowie</td>
<td>10.74</td>
<td>0.001***</td>
<td>1.64</td>
</tr>
<tr>
<td>Incantation</td>
<td>0.32</td>
<td>0.73</td>
<td>2.23</td>
</tr>
<tr>
<td>Sinéad O’Connor</td>
<td>1.45</td>
<td>0.24</td>
<td>5.30</td>
</tr>
<tr>
<td>Madonna</td>
<td>2.00</td>
<td>0.15</td>
<td>4.88</td>
</tr>
<tr>
<td>Moody Blues</td>
<td>4.27</td>
<td>0.02*</td>
<td>3.52</td>
</tr>
<tr>
<td>N W A</td>
<td>1.36</td>
<td>0.27</td>
<td>4.15</td>
</tr>
<tr>
<td>Paula Abdul</td>
<td>1.31</td>
<td>0.28</td>
<td>5.58</td>
</tr>
<tr>
<td>Crystal Waters</td>
<td>0.20</td>
<td>0.82</td>
<td>4.01</td>
</tr>
<tr>
<td>La Tour</td>
<td>0.66</td>
<td>0.52</td>
<td>4.32</td>
</tr>
</tbody>
</table>

*p<.05, **p<.01, ***p<.001

The 12-14 year old adolescents significantly scored lower on music preference for David Bowie than both the 15-17 year olds and 18+ groups. As well, the 12-14 year old adolescents scored significantly lower on music preference for the Moody Blues than the 18+ adolescents.
Table 17

_Highest and Lowest Music Preference Ratings_

<table>
<thead>
<tr>
<th>Artist</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sinéad O'Connor</td>
<td>5.65</td>
<td>1.60</td>
</tr>
<tr>
<td>Paula Abdul</td>
<td>5.34</td>
<td>1.86</td>
</tr>
<tr>
<td>Incantation</td>
<td>1.96</td>
<td>1.53</td>
</tr>
<tr>
<td>N.W.A</td>
<td>3.30</td>
<td>2.13</td>
</tr>
</tbody>
</table>

The songs and artists with the highest means were Sinéad O’Connor’s “Nothing Compares 2 U” and Paula Abdul’s “Rush, Rush.” The two songs with the lowest means were Incantation’s “Entrantment of Evil” and N.W.A’s “F*** tha Police.”

**Relationships among Domains**

Table 18

Correlations Among the Walker Music Questionnaire Factors, Adolescent Semantic Differential Factors and the Music Preference Ratings

<table>
<thead>
<tr>
<th></th>
<th>WMQ</th>
<th>ASDS</th>
<th>MP</th>
</tr>
</thead>
<tbody>
<tr>
<td>WMQ</td>
<td>0.537</td>
<td>0.0006***</td>
<td>0.696</td>
</tr>
<tr>
<td>ASDS</td>
<td>5.34</td>
<td></td>
<td>0.853</td>
</tr>
<tr>
<td>MP</td>
<td></td>
<td></td>
<td>0.0001***</td>
</tr>
</tbody>
</table>

*p<.05, **p<.01, ***p<.001
The canonical correlation analysis showed no significant relationship between the correlated WMQ factors and the Music Preference ratings. However, there were highly significant relationships between the WMQ factors and the ASDS factors as well as the ASDS factors and the Music Preference ratings.

Table 19


<table>
<thead>
<tr>
<th>Artist</th>
<th>Evaluative</th>
<th>Romance</th>
<th>Potency</th>
</tr>
</thead>
<tbody>
<tr>
<td>M.C. Hammer</td>
<td>0.40</td>
<td>0.10</td>
<td>0.30</td>
</tr>
<tr>
<td></td>
<td>0.0001***</td>
<td>0.2579</td>
<td>0.0008***</td>
</tr>
<tr>
<td>David Bowie</td>
<td>0.18</td>
<td>0.31</td>
<td>0.22</td>
</tr>
<tr>
<td></td>
<td>0.0433*</td>
<td>0.0005***</td>
<td>0.0161*</td>
</tr>
<tr>
<td>Incantation</td>
<td>-0.03</td>
<td>0.05</td>
<td>-0.04</td>
</tr>
<tr>
<td></td>
<td>0.7148</td>
<td>0.5527</td>
<td>0.7017</td>
</tr>
<tr>
<td>Sinéad O'Connor</td>
<td>0.42</td>
<td>0.26</td>
<td>0.34</td>
</tr>
<tr>
<td></td>
<td>0.0001***</td>
<td>0.0035**</td>
<td>0.0001***</td>
</tr>
<tr>
<td>Madonna</td>
<td>0.47</td>
<td>0.31</td>
<td>0.30</td>
</tr>
<tr>
<td></td>
<td>0.0001***</td>
<td>0.0025***</td>
<td>0.0039**</td>
</tr>
<tr>
<td>Moody Blues</td>
<td>0.40</td>
<td>0.22</td>
<td>0.35</td>
</tr>
<tr>
<td></td>
<td>0.0001***</td>
<td>0.0134**</td>
<td>0.0001***</td>
</tr>
<tr>
<td>N W A</td>
<td>0.16</td>
<td>0.35</td>
<td>0.04</td>
</tr>
<tr>
<td></td>
<td>0.2031</td>
<td>0.0049**</td>
<td>0.7523</td>
</tr>
<tr>
<td>Paula Abdul</td>
<td>0.44</td>
<td>0.13</td>
<td>0.34</td>
</tr>
<tr>
<td></td>
<td>0.0001***</td>
<td>0.1546</td>
<td>0.0001***</td>
</tr>
<tr>
<td>Crystal Waters</td>
<td>0.53</td>
<td>0.35</td>
<td>0.36</td>
</tr>
<tr>
<td></td>
<td>0.0001***</td>
<td>0.0001***</td>
<td>0.0001***</td>
</tr>
<tr>
<td>LaTour</td>
<td>0.47</td>
<td>0.42</td>
<td>0.41</td>
</tr>
<tr>
<td></td>
<td>0.0002***</td>
<td>0.0007***</td>
<td>0.0013***</td>
</tr>
</tbody>
</table>

*p<.05, **p<.01, ***p<.001

The Evaluation factor found eight significant correlations. All correlations will be reported from highest to lowest significance. They were Crystal Waters, Madonna, LaTour, Paula Abdul, Sinéad O’Connor, Moody Blues, MC Hammer and David Bowie. The Romance factor had seven significant correlations and...
they were LaTour, N.W.A, Crystal Waters, Madonna, David Bowie, Sinéad O’Connor, The Moody Blues. The last factor Potency had also eight significant correlations – LaTour, Crystal Waters, Moody Blues, Sinéad O’Connor, Paula Abdul, Madonna, MC Hammer, David Bowie.

Summary
For the adolescents in this study, their psychological health level had an effect on their experience of music both in terms of the role music plays in their lives and their emotional reactions to music even when partialled out by other variables. Specifically the depressed group had higher means on the WMQ factors of Introspection and Identity/Music. As well, when the development variables were added in, the adolescents with a low level of school commitment also had significantly higher means on the WMQ factors of Identity-Music, Discerning Music Identity, and Fantasy-Rebellion. On the second measure, for emotional reaction to music, the psychiatrically ill group had significantly higher means than the non-clinical adolescents on the Romance and Potency factors. Even controlling for this relationship, personality also had an impact on the emotional experience of music with the Combined group having higher means on the Evaluative and Potency factors than the Preconformist group. Lastly, Age group was the only variable that was significantly different for the subjects on the preference ratings. The younger group of adolescents had a significantly lower mean on the music of David Bowie that the both older groups of adolescents (15-17 years and 18+ years).
Chapter 6

DISCUSSION

Introduction

This research evolved from my clinical work with adolescents. At an internship at a psychiatric unit many years ago, it appeared that the hospitalized adolescents were particularly fascinated by popular music. This observation was also confirmed in later clinical work with adolescents as many of these clients also spoke extensively about music and its importance in their lives. Several months ago, an adolescent during her weekly therapy session exclaimed that she would die without music. She described how she puts on her iPod and plays angry music when she is upset, and when sad, listens to sad music. This youth also described posting her favourite lyrics on Facebook in order to help her friends. She said that music saves her every day. All of these experiences have resulted in my wanting to understand better the role and emotional use that music plays in the lives of adolescents and whether music plays a different role for adolescents who were struggling psychologically.

Three groups of adolescents were used in this dissertation: a psychiatrically ill group of hospitalized adolescents, a community-based depressed group measured by their score on the BDI of 16 or over, and a community based non-clinical group of adolescents who scored under 16 on the BDI. Participants were based on different aspects of psychological health. I wanted to see whether
these three groups of adolescents would react differently on two music measures while capturing whether different developmental issues also impacted simultaneously on how these adolescents experienced music. This was important to capture for several reasons. First of all, adolescence is a time of profound psychological change and music seems especially critical at this developmental level more than any other life stage (Chapin, 2000). I also wondered whether the clinical adolescents emotionally experienced the music differently than their peers and preferred different genres than their non-clinical peers.

Many researchers have theorized that adolescents use music in their lives to meet developmental needs, emotional management, separate from parents, identity formation, learn about their social world, and peer group identification (Arnett, 1995; Brown et al., Christenson & Roberts, 1998; Larson, 1995; North & Hargreaves, 2008; North, Hargreaves, O’Neill, 2000; Sun & Lull, 1986). Many researchers have explored whether adolescents who are experiencing major psychological issues use music differently in their lives and prefer music that is labelled problem/deviant (Mulder et al., 2007; North & Hargreaves, 2008; Schwartz & Fouts, 2003). The development issues related to adolescent development utilized in this research were age, gender, personality, as well as commitment to school. It was expected that a more in-depth exploration of the relationship between adolescents and how they experience music would capture the complex experience of adolescents and move this research beyond a simple
cause and effect type of study as a way of acknowledging the intricate nature of music’s role and experience in adolescence.

There were significant differences in the role of music and how popular music is experienced emotionally for the subjects in this research. Before a discussion of these differences, I will outline the background of the research; the factors derived from the factor analyses for the two music measures and link these factors with previous research. In addition, I will present the results of the multivariate analyses that used psychological health as a relevant factor in explaining the variance in the importance of music and the emotional reaction to music in their lives even when controlling for the developmental predictors such as age, gender, personality, and school commitment. The preference variable will follow with a summary of the significant relationships focusing on psychological health, personality, and level of school commitment. There are limitations of the findings and I will suggest ways to move forward with these results and explore additional aspects of adolescent music experience. Lastly, some final thoughts about the use of these findings for clinical work and the link, if any, to the controversy regarding music’s influence on adolescents.

**Background of Study**

In the mid-1980s, Tipper Gore (wife of Senator and later Vice President Al Gore) and Susan Baker, wife of James Baker (Secretary of the Treasury) started the Parents Music Resource Centre (PMRC). The PMRC alleged that popular music
(especially heavy metal music and punk rock) was responsible for the increase in violence, teenage pregnancy, and teen suicide. The group’s mission was to educate parents about the sexually explicit and violent lyrics prevalent in music and even managed to get record companies to place warnings on certain rock albums. The group created a list of the most shocking artists at the time, which included Madonna, Motley Crue, Def Leppard, based on the overt sexuality of their music (Christe, 2003). This group was able to elicit much publicity about their beliefs and many rock stars at the time spoke out against this group and the labelling of rock albums.

Also in the mid-1980s, heavy metal singer Ozzy Osbourne of Black Sabbath was taken to court over his song “Suicide Solution” as it was alleged to have promoted suicide in its lyrics and compelled a 19-year old adolescent to shoot himself. The lawsuit was dismissed after Osbourne testified that the song was in fact about a friend who had committed suicide following an alcohol-binging episode and actually had an anti-suicide message (Litman & Farberow, 1994).

In 1990, a lawsuit was launched against heavy metal band Judas Priest, a prominent heavy metal band at the time. This band and their recording company were sued by the families of two young men who consummated a suicide pact after listening to a Judas Priest song based on the alleged subliminal messages in their songs encouraging their listeners to kill themselves. Judas Priest and their record company were cleared of all charges. The defense not only showed
that the boys had a history of troubling behaviours but that there was no proof that there was subliminal messages in the music (Litman & Farberow, 1994; Sharpe-Young, 2007; Wasler, 1993). In 1996, the alternative band Pearl Jam was also taken to court for their music video Jeremy, which was alleged to have influenced a young man to shoot three students and a teacher in Moses Lake, Washington. Similar to the suicide cases described above, the U.S. courts rejected the “media made me do it defense” also for this lawsuit (Sternheimer, 2003, pg. 132).

News reports have linked music and television violence as important contributing factors to outbreaks of adolescent violence including the school murders in Pearl, Mississippi; Jonesboro, Arkansas; Paducah, Kentucky; and Littleton, Colorado (Villani, 2001). For example, after the shooting rampage at Columbine High School, music was not only blamed for inciting violence but for creating a sense of alienation in its listeners. Even though it is unclear whether the Columbine shooters were actually fans, the shock-rock band Marilyn Manson garnered a lot of criticism (North & Hargreaves, 2008; Sternheimer, 2003).

Certain genres of music have come under more scrutiny for their lyrics and the lifestyles of the performers including gangsta rap, heavy metal, and punk/alternative. Roe (1999) stated criticisms have tended to centre on alleged sexual, violence, drug, racist, sexist, and satanic-oriented content, especially in the genres of rock, heavy metal, rap, and house. Rap music specifically has a
history of media reports that its lyrics incite violence against women and gay people due to the homophobic and sexist nature of their songs and music video depictions (Sternheimer, 2003). In the early 1990s, the group N.W.A was targeted by the FBI and arrested after a performance, which resulted in the band achieving skyrocketing record sales (Christe, 2003; Rose, 1994; Sternheimer, 2003).

The fear that rock music will have negative effects on youth dates back to the controversy around Elvis Presley and the “moral panics” that ensue when a new type of music or media is introduced (Springhall, 1998). The fear that music incites violence is clearly not new. However, much of the media allegations of the present time centre around the false belief that children and adolescents are more violent than in the past due to their increased exposure of media culture when in fact acts of violence by children and adolescents have decreased (Sternheimer, 2003). The media also assumes that children and adolescents cannot distinguish media violence from real violence (Christenson & Roberts, 1998; Springhall, 1998; Sternheimer, 2003).

The school environment is a place to socialize with peers and to gain more information about developmental issues. Young Canadians spend far more time in school, at work and consuming mass media than they do with their parents (Adams, Cote & Marshall, 2001). As the research by Roe (1983, 1985) has demonstrated failure at school has had an impact on later music preference and
uses of music in an adolescent’s life. It is usually assumed the other way around, negative music preference influences adolescents in doing poorly at school. Roe (1983) concluded that early failure at school provoked oppositional music tastes and a greater orientation to peers as a means of gaining prestige.

Overview of the Music Measures

Two distinct measures related to music were used in order to capture from the adolescents perspective what they think and feel about popular music. The first measure was the Walker Music Questionnaire (WMQ). The second measure was derived from the adolescents’ ratings on 10 pieces of popular music using the Adolescent Semantic Differential Scales (ASDS) as a means of measuring their emotional reactions. Factor analyses were conducted on both music measures and the factors found showed interesting factors that can be linked to previous research on adolescent development and popular music. The factors derived will be presented and linked with the research.

Results of the Factor Analysis for the WMQ

The WMQ found five factors that were labelled Introspection, Identity-Music, Discerning Music Identity, Fantasy-Rebellion, and Identity-Self. These factors converted the information from a number of questions into smaller more manageable concepts on music’s role and importance in the adolescents’ lives. These factors illustrated for this group of adolescents the critical role that developmental issues played in their musical experience, especially prominent
were issues related to identity (see also DeNora, 2000; MacDonald, Hargreaves & Miell, 2002; Tarrant & Hargreaves, 2002). Issues related to identity played a central role in their music experience both in terms of identity formation and their identity in a peer group. The subjects also used music as a means to explore the aspects of fantasy, rebellion, and emotional regulation.

The first factor was interpreted as “Introspection,” since the highest loadings were for items concerning music’s use for emotional needs, that is, their favourite music expresses how they feel, making them feel sad and lonely (Hargreaves, Miell & McDonald, 2002; North, Hargreaves, O’Neill, 2000; Roe, 1985; Schwartz & Fouts, 2003; Sun & Lull, 1986; Tarrant, North & Hargreaves, 2000; Wells, 1990); help them to find out about love, relationships and moral issues (Brown & Schulze, 1990; Brown, Steele, Walsh-Childers, 2002; Gantz, Gartenberg, Pearson, Schiller, 1978; Greenberg et al., 1993; Rouner, 1990; Steele & Brown, 1995).

The second factor was interpreted as “Identity-Music” since the highest loadings were for items concerning peers and how the adolescents believe they can predict other adolescents’ music preferences from how they dress, and that they share the same musical tastes as their friends. They also expressed in this factor, the importance of the music/tune as part of their music experience. The link with peers has also been found in the following research (Arnett, 1995; Chapin, 2000; Christenson & Roberts, 1998; Fine et al., 1993; North &
Hargreaves, 1999; North et al., 2000; Sinason, 1985; Tarrant et al., 2000; Tekman & Hortacsu, 2002). This factor also illustrated the importance of music videos (Brown & Schulze, 1990; Christenson & Roberts, 1998; Hansen & Hansen, 1988; Kalof, 1999; Sherman & Dominick, 1986; Smith & Boyson, 2002; Sun & Lull, 1986).

The next factor was interpreted as “Discerning Music Identity,” since the highest loadings were for items concerning the adolescents reporting that they liked only their favourite music and band, and how music was an important part of their identity. It appeared that they had discriminating taste and did not deviate from what they liked and were committed to this music style only. Arnett (1995) described similar beliefs for a group of metalheads.

Fantasy-Rebellion was the next factor, which was interpreted this way because of its high loadings on using music for fantasy, including the wish to be in a rock video and the view that being a rock star would be thrilling. As well, there were high loadings on the statement that their favourite music made them feel angry and aggressive. This dimension of music's role for adolescents is not surprising given that each generation of teenagers has been differentiated by listening to very different music from their parents’ generation (Bleich, Zillman & Weaver, 1991; Brown & Hendee, 1989; Christenson & Roberts, 1998; Springhall, 1998). This factor suggests that some adolescents may use music for its fantasy purposes of perhaps trying on different roles in adolescence (Larson, 1995) or as
a means of identifying and emulating their favourite musician or band (Arnett, 1995; Farber, 2007; Sternheimer, 2003). Roe (1995) also postulated the term media delinquency to describe adolescents who like controversial music as a means of rebelling and acting out. Arnett (1995) also portrayed the role of both rebellion and fantasy for a group of metalheads in their liking of heavy metal music. Robinson, Weaver and Zillmann (1996) reported the interaction between gender and rebellion with males reporting more rebelliousness through their music preferences than did females.

The last factor labelled “Identity-Self” suggests that adolescents in this study used music to explore aspects of their sense of self (DeNora, 1999; Dillman-Carpentier et al., 2003; Farber, 2007; Kroger, 2004; Miranda & Claes, 2004; North & Hargreaves, 2008; Roe, 1999; Tarrant et al., 2002). This factor reflected how they distinguished themselves as individuals with different identities from their peers. They also used this factor to state that music reflects who they are. Similarly, Hargreaves, Miell, McDonald (2002) found that one of the reasons for listening to music was for self-actualization.

Results of the Factor Analysis for the ASDS
A recent radio ad asked the question why is music so important. The beginning riffs of several well-known rock songs and the statement “because it makes you feel something” followed this question. The essence of this part of the dissertation has been to explore what that “something” is for the three groups of
adolescents who participated in this study. Research utilizing the semantic differential scales generally finds the two factors of Evaluation and Potency (Miller, 1990). A property of this test is the strength of the Evaluative factor in all research regardless of culture or language as people judge all stimuli in terms of good or bad. Many studies have found alternative third factors instead of the Activity factor postulated by Osgood (1957). In this research the third factor was labelled Romance because of its high loadings on the bipolar adjectives of sexy, romantic, passionate, dreamy, fantasy, stimulating, etc. Much of popular music has been found to contain songs about love and relationships (Arnett, 2002; Gibson, Aust, Zillman, 2000; Knobloch & Zillmann, 2003; North & Hargreaves, 2008; Scheff, 2001; Steele & Brown, 1995). Chapin (2000) suggested that girls are more drawn to media depictions of romance and sexual relationships than boys. Knobloch and Mundorf (2002) suggested that those who suffer from loneliness choose genres that offer understanding and comfort with the music expression of loneliness so listeners do not feel alone in their situation.

**Results of the WMQ MANOVA**

In terms of the main research questions, the depressed group of adolescents differed significantly on the WMQ regarding the role of popular music in their lives. The depressed group remained significant even while simultaneously examining the five WMQ factors and the developmental variables of Gender, Age Group, Personality, and School Commitment. For the WMQ, all of the predictors were also significant except for gender. However, post hoc analysis did not find Age
Group significant but School Commitment and Personality did remain significant for the WMQ factors, when corrected for the other variables. A discussion speculating about the possible reasons the depressed group reported the role of popular music in their lives differently than the other two groups will follow. Next will be the two WMQ factors specifically the depressed group used more than the other two groups. Lastly, the WMQ factors that were significantly related to the School Commitment and Personality variables will also be outlined and linked with previous research.

Many people have speculated about the unique relationship between music and depression. Aschbach (1990) suggested that music is used more by children/adolescents who want to escape painful depressive feelings from their home environment. Others have conjectured on music’s role in expressing states of feelings of which the listener may be unaware and in helping the listener become aware of their numbness and break through their depression (Lesser, 2007, Sacks, 2007; Styron, 2000). Music does appear particularly important to adolescents because it helps them feel less alone and alienated (Farber, 2007; Gracyk, 2007; Levitin, 2008; Stein, 2004). Stein (2004) added that music might assist in the mourning process for many adolescents as they are developmentally giving up their childhood beliefs in order to embrace adulthood. Wells (1990) found that both male and female college students reported that they used music to combat feelings of depression.
Researchers have found that depressive disorders interrupt normal development process, particularly identity achievement (Cincetti & Toth, 1998; Korhonen et al., 2001; Pullen et al., 2000). Depressive disorders can result in a loss of sense of self so crucial during this time and can result in a negative association between self-image and mental health during this time of identity exploration and consolidation. It appears for the depressed subjects, the role of music in their lives may have been for obtaining information relevant to issues related to identity formation, negotiating developmental tasks relevant to adolescence and managing emotion.

The depressed group used the Introspection and Identity-Music factors more than the psychiatrically ill and non-clinical adolescents. The most significant relationship was with the Introspection factor, which suggests that the depressed group was more concerned about this factor in their interpretation of the role that popular music played in their lives. This factor appears to have a strong emphasis on the emotional use of music and as a means of gaining information about peers, love, relationships, and moral issues. The depressed group may listen to help them with their emotions as they report liking music that expresses how they feel. These adolescents are active users, meeting their developmental needs, and gaining information about their world, which parallels the surmising of Chapin (2000) and Fine and Mortimer (1993).
The next significant relationship from the WMQ was the Identity-Music factor. This factor illustrates the importance of identity exploration through the role of music in their lives for the depressed group of adolescents. The statements included in this factor were about the importance of music videos in their lives, their favourite music makes them happy, and the sound/tune was also crucial for them. The peer aspect of music listening was also illustrated in this factor with the adolescents reporting in this factor that they listen to the same music as their friends and the same as others in their neighbourhood. I wonder if this group is saying they belong and how similar their beliefs and attitudes are with their peers as a way of portraying an image to the outside world of being similar to their peers both at school and in their neighbourhood (North, Hargreaves & O’Neill, 2000). This factor also suggests that music may fill in where a peer group may be absent, as feeling depressed is often an isolating and lonely experience, and the wish to assimilate/belong may be met by listening to music. Furthermore, this factor suggests that the depressed group used music and music videos to make them happy as perhaps a way to feel less depressed more than the other two groups. Watching music videos on television tends to be a solitary activity (Larson, 1995) as this group who might be more isolated than their peers.

Research on Music and Depression

Most of the research examining depression and popular music has concentrated on the preference for heavy metal music by gender. Many researchers have found that females who prefer heavy metal or hard rock music score higher on
the depression scales and on more serious issues of self-harm and suicidal ideation than their male counterparts (Martin et al., 1993; Miranda & Claes, 2007, 2008). Research focusing on suicide and internalizing distress has also found this link with heavy metal music (Scheel & Westefeld, 1999; Stack, Grundlach & Reeves, 1994; Wass, 1988-1989). However, Miranda and Claes (2007) did not find a link for male adolescents and depression but did find lower depression scores for female adolescents when they reported a preference for soul music (hip hop, rap, reggae and R&B). As well, Miranda and Claes (2008) suggested that preference for soul music was a predictor of lower depression for girls six months later. Martin and colleagues have interpreted their findings as there being vulnerability in girls who like heavy metal music for depression and suicidal risk. Others have suggested that girls are only more willing to report feeling depressed than boys and/or the findings also reflect that depression is higher in female adolescents generally. Mulder and colleagues (2007) found that Dutch girls who preferred heavy metal were not more depressed and commented that cultural factors were an important element in the research from Canada, Australia and the United States. Also the girls of concern who liked heavy metal constituted a very small group in all of the studies.

Psychological health is still related to the WMQ factors even when controlling for the developmental variables. It is important to note that even with the developmental variables, psychological health is still a crucial variable in how the adolescents understood the role of music in their lives.
Level of School Commitment and the WMQ Factors

The school commitment variable remained significant in its relationship to the WMQ factors. This finding is congruent with Roe’s research that adolescents less committed to school describe music as playing a critical role in their lives. Adolescents with a low level of school commitment scored higher on the Identity-Music, Discerning Music Identity, and Fantasy-Rebellion factors. These adolescents obtained their sense of identity from music and saw themselves as committed fans to their type of popular music. This group’s use of the Fantasy-Rebellion factor may relate to their lack of self-esteem derived from school, that they use fantasy to feel good about themselves, and this may be more rebellious because of their lack of commitment to school. Other researchers have found that low commitment to school predicted liking for oppositional music (Murdock & Phelps, 1973; Roe, 1984; Tanner, 1981). Miranda & Claes (2007) found a link with academic problems and depression for both boys and girls. Preference for soul music (hip hop, R&B, rap) was correlated with more academic problems in girls. Took and Weiss (1994) found that adolescents who liked heavy metal and rap had more academic and school problems than fans of other music genres. Tanner (1981) found that lower-class youth were significantly more likely to be less committed to school than than their middle-class peers. As for many youth, school can be a place to explore their sense of self outside of their family, but for those youth not committed to school, they may need other ways to sort out their identity issues. Turning to music may be a way to do this.
Personality and the WMQ Factors

Preconformist adolescents tend to be impulsive and have a concrete, self-centered perspective. With increased development, adolescents become capable of taking another person’s perspective and more cognitive complexity. Conformist adolescents are more likely to be concerned about being liked and accepted and often express their views in clichés and stereotypes (Noam et al, 1994). The Combined (Conformist with Self Aware stages) group of adolescents used the Introspection and Identity-Music factors significantly more than the Preconformist adolescents. Thus, it appears that they were more likely to use music introspectively, for emotional regulation and for a sense of identity, which included having a similar preference to their peers at school. Although there is no research using the WUSCT and music preference, a link between Openness to Experience and higher ego development level was found by McCrae and Costa (1980). However, the research linking Openness to Experience with music has focused on preference for music genres specifically with Rock and Elitist music (Desling et al., 2008; Renfrow & Gosling, 2003) and Eclectic music (Miranda & Claes, 2008). Schwartz and Fouts (2003) explored music preference, personality and developmental issues. They were the only researchers to date that have linked developmental issues with personality and music preference. They found that those adolescents who preferred heavy metal music had issues related to self-esteem, were anti-conformist, lacked a stable sense of identity, whereas light pop music preference was related to doing the right thing and to
concerns about their sexuality and relationship with peers. However, the group of adolescents in their study that reported Eclectic music tastes were not reporting any developmental issues and appeared to have the healthiest personalities. They found considerable support for their hypothesis that adolescents prefer listening to music that reflects the developmental issues with which they are dealing.

**Results of the ASDS MANOVA**

In terms of the main research question, psychological health was a multivariate predictor of the ASDS factors, independent of other predictors. All three groups used the Evaluative factor equally as it is the “most ubiquitous factor in aesthetic stimuli” (Osgood et al., 1957, p. 74). The psychiatrically ill group used the Potency factor significantly more than the non-clinical and depressed adolescents. Potency is characterized by the intensity or power of semantic meaning that might be interpreted in this context of being the opposite of feeling powerless as an inpatient in a psychiatric hospital. The Romance factor was also significantly related to the psychiatric group and might be understood as a way of using music to make up for what is missing in their lives and a means of seeking information about relationships through music listening. Furthermore, Storr (1992) suggested that music might be a way for people who are cut off from their feelings to recover alienated feelings.
Two studies with adolescent psychiatric patients found that a preference for heavy metal and/or rap music was linked with higher incidents of sexual activity, drug and alcohol use, arrests and delinquent behaviour (King, 1988; Took & Weiss, 1994). Both studies also included responses from the adolescents, the adolescents’ parents as well as court records.

Psychological health remains related to the ASDS factors even when controlling for the developmental variables. It is a key finding that even when the developmental variables are examined; psychological health remains a crucial variable in how the adolescents react emotionally to music.

Post hoc tests found that Personality was also a significant predictor. The Combined group of adolescents used the Evaluative and Potency factors significantly more than the Preconformist group of adolescents. The Combined group of adolescents may have valued the judgmental aspect of the music experience and the power of the music more than the other two groups as they value conformity and fitting in more than the Preconformist group of adolescents. These two factors are the most common emotional reactions to music in all subjects.

**Music Preference**

In general terms, gender was found to be significant in terms of songs liked in this research. The females in this study liked significantly more the pop music
songs of Paula Abdul, Crystal Waters, and MC Hammer than the male adolescents. MC Hammer’s song was considered pop or lite rap at the time. The male subjects significantly liked more the metal and rap songs of N.W.A and Incantation than the female adolescents. These results reflect the gender differences on music preferences similar to many other researchers (Christenson & Roberts, 1998; Frith & Goodwin, 1990; Frith & McRobbie, 1978; Martin et al., 1993; Took & Weiss, 1994).

No relationship was found between psychological health and music preference in this study. The psychiatrically ill and depressed group did not like the problem music (rap or thrash metal songs) better than their peers. This finding is contrary to previous research that has examined adolescents and young people who are marginalized and/or experiencing major psychological issues and found that they prefer problem music (Hansen & Hansen, 1991; King, 1988; North & Hargreaves, 2006; Scheel & Westefeld, 1998; Took & Weiss, 1994; Wass et al., 1989). However, many of these researchers have speculated about the possibility of a third factor that may not be initially part of their research but emerged later such as low self-esteem (North & Hargreaves, 2006), being male (Took & Weiss, 1994) and family dysfunction (Martin et al., 1993). In a recent study, Stack (2002) found a relationship between suicide acceptance and interest in opera subculture. He found that fans that specifically were female, elderly and better educated were significantly more approving of suicide being acceptable in cases of dishonour to the victim or his or her family.
The only developmental variable that was significant was Age Group and music preference. David Bowie and the Moody Blues were liked significantly more by the two older groups (15-17-year-olds and 18+ year-olds) than the youngest group of 12-14-year-olds. Thus, the younger adolescents significantly disliked the classic rock songs in this study more than the older adolescents.

**Summary**

Popular music does seem to play a unique role for adolescents struggling with psychological issues. Psychological health was a significant factor both in terms of music's role in their lives and their emotional reaction to music. The developmental issues of personality and school commitment were also significant and influential within these three groups of adolescents. The role of music in the lives of the depressed group was significantly different than for the other two groups. The depressed adolescents reported liking the emotional qualities in music, music that informed them about love, relationships and moral issues, and as something they did alone. The depressed adolescents also used music for identity purposes including identification with peers and school friends. Importantly, even when the developmental issues were simultaneously examined, psychological health remained significant. It can be wondered whether the depressed adolescents use music to connect with emotional states that they are cut off from or as a reflection of their internal state or as a means of
feeling not alone (DeNora, 2000; Levitin, 2008; Sacks, 2007; Stein, 2008; Storr, 1992).

The psychiatrically ill group of adolescents’ emotional reaction to music was significantly different than the depressed and non-clinical groups of adolescents. These adolescents reacted to the intensity (potency) as well as romantic/emotional aspects of the music. There has been no previous research that examined adolescents’ emotional reaction to popular music. However, I wonder if the adolescents in this study were using the music in order to feel more powerful themselves due to the lack of power as inpatients in a psychiatric unit at the hospital. Also, their emotional reactions to the romance of the music may reflect their lack of relationships and need to seek out information from music, or perhaps their longing for a romantic relationship.

Personality consolidation is one of the developmental tasks of adolescence (Christenson & Roberts, 1998). In this research the Combined group used the two music measures differently. The Combined group is characterized by their wish to conform to rules and standards and to fit into their peer group. The Combined group appeared to value the emotional qualities in music and use music as part of their identity formation exploration. Perhaps predictably, the Combined group used the Evaluative factor more in their emotional reaction to music as well as the Potency factor (the intensity) of the music. The Combined group may value making judgments about music whether it is good or bad and
react to the intensity of the music. These two factors tend to be typical reactions to aesthetic stimuli.

My inclusion of the school commitment scale was influenced by the work of Keith Roe and his part in the Swedish longitudinal study of media use by Swedish children and adolescents. Plus, his results resonated with my clinical work with adolescents as there are many adolescents who may or may not do well at school but clearly are not committed to their school life. They appear to feel good about themselves in other ways, such as, through piercing, tattoos, or clothing styles that often reflect their music preferences. In this research, those adolescents with a low level of school commitment reported the role of music in their lives differently than those adolescents with a high commitment to school. They reported liking only their distinctive type of music, deriving important aspects of themselves through music and using music for emotional as well as informational purposes.

The music preference part of this research surprisingly had few significant relationships as most of the research cited in this dissertation focused on music preference and its relationship with various attitudes, beliefs and behaviours. However, I did not find any other research that measured music preference by having the adolescents listen to music that reflected various genres. The unanswerable question remains, however, whether the music chosen did reflect the genres that the music experts and myself thought they did. Or did the
preferences found in this dissertation reflect the adolescents’ choices and not just their reaction to the demand characteristics found in much of the other research. North and Hargreaves (2008) stated much of the problem music research is flawed because of the obvious demand characteristics of the studies and that most of the research has been done with undergraduate psychology or communication students who may be well informed about the controversial nature of the music studied.

As this research evolved from my clinical work with adolescents, it is important to reiterate that the results confirm my experience with clinical adolescents using music differently than their peers. This research does not delineate why this is the case but as described above definitely highlights differences between the depressed, psychiatric, and non-clinical adolescents. It is not clear whether the two clinical groups used music to obtain information about their world or whether it was used differently given their developmental needs being affected by their mental health issues. The results suggest to clinicians that asking adolescents about the role of music in their lives and their music preferences might be critical information about understanding the issues with which they are struggling and how they are possibly coping with these issues. This exploration of popular music in their lives could suggest to the clinician some of the internal issues with which the youth is preoccupied and working on developmentally. As well, an adolescent’s experience of school might also provide the clinician with a means of understanding the adolescent’s experience.
In terms of the controversy around problem music and its effect on adolescents, this research suggests that there are many variables within the adolescent including psychological health and development issues that contribute to the adolescent’s experience of music rather than just listening to problem music. Furthermore, Steinheimer (2003) suggested that it was easier to blame popular music than look at how society contributes to the issues of alienation, violence, misogyny, homophobia, and poverty. Instead of looking for simplistic answers for complex questions by presenting the music preferences of troubled adolescents, there needs to be a more systematic exploration of the various factors within the individual and the music that may influence some adolescents some of the time. This research has been one small exploratory step in that direction.

Clinical Relevance

In my role as a psychotherapist, numerous adolescents have spoken with me about how music has affected them profoundly. The following examples illustrate this deep meaning along with how in the therapeutic work we sometimes together figured out what music meant to them and how music was helpful. Rita was a 17-year old girl who cut herself regularly. Her arms and legs were covered in scars and she was cutting on top of scars in order to cut through the surface of her skin. We tried to explore in therapy what were her triggers for cutting. The only factor Rita could occasionally identify was that alternative rock music she heard on the radio could provoke her into cutting herself. She described movingly how Hurt by Johnny Cash was a song that she
found deeply disturbing and that she could not listen to it without experiencing the urge to cut. She described how the pain and rawness in his voice plus the lyrics were overwhelming to her. She struggled during the years of therapy to describe where the urges to cut came from and to discern what else set her off. She was unwavering however, in her clarity that this song expressed something emotionally to her for which she did not have words. This example of Rita was similar to the examples presented earlier in Chapter 3 by Oliver Sacks and Wendy Lesser who wrote that music pierced through their numb feelings and helped them feel something (Lesser, 2007; Sacks, 2007; Storr, 1992). A significant difference is that for Sacks and Lesser this experience was positive or adaptive whereas for Rita it appeared to make her more aware of her distressed feelings and to foster an urge to cut herself.

Sarah was a 14-year old in foster care who has been in care for the last four years. In therapy Sarah was exploring the possibility of living with her father’s family as she had been told that it was unlikely that she would ever return to live with her mother. She stated that she could give up dying her hair a different colour weekly, she might possibly take out some of her piercings but that she could not listen exclusively to rap music. Her impression of her father’s family was that she would be expected to listen to rap music, which for her felt intolerable. The issue of where she would live is clearly much more complicated than she initially stated but in her mind the music preference of her
father’s family represented one of the crucial ways she would not fit into her father’s family.

The third example was Christy who was also 14-years old. Christy was exploring her angry feelings with her Egyptian father with whom she was having considerable conflict, related to her wish to be less traditional and more Canadian than he wanted her to be. Christy was outraged at her younger brother’s role in the family and the different expectations her father had different of her brother and herself. Christy volunteered that she coped with her angry feelings by going out on the apartment balcony and playing her angry metal music on her I-Pod as loudly as she could while smoking in order to calm down. She added that she reacts in the same way when she feels sad, but when sad she substitutes sad songs to comfort herself. Many theorists have suggested that listening to sad music when feeling sad is comforting (Farber, 2007; Gracyk, 2007; Levitin, 2008; Stein, 2004). Christy also shared that she posts the lyrics of her favourite songs on Facebook to help her friends. She was adamant stating that she would die without music and that music saves her on a daily basis. Music also helps Christy with her sad feelings about her relationship with her father and perhaps in some ways helps her mourn the relationship she wishes she could have with him but does not Stein, 2004).

These clinical examples illustrate the findings of the Walker Music Questionnaire. All of these adolescent girls were struggling with various degrees of depression
and feeling overwhelmed with aspects of their lives. They all used music in
diverse ways to cope with challenging aspects of their lives and to help them
understand their emotional states. They also used music for the emotional
regulation it provided them and as a means of feeling comforted through the
emotional expressiveness in the music. Music appeared to give these girls a
sense of identity as they could see aspects of themselves reflected in the music
they chose to listen to. For Sarah, music was a way of differentiating herself from
her father’s family and as a way of demonstrating to herself how she was
different from them. For Rita, music expressed the feelings she had trouble
putting into words. Christy used music as a means to “save herself daily” and to
help her friends by posting the lyrics of her music on Facebook. All three
adolescents reported that one of the most important functions of music in the
lives was that they did not feel alone but felt understood by their music.

The following illustrates several adolescents struggling with psychiatric issues
who reflect the findings from the Adolescent Semantic Differential Scales
(ASDS). As described above, the factors of romance and potency were found to
be experienced differently by the psychiatrically ill adolescents. That is, the
hospitalized adolescents in this research emotionally reacted more to the
romance and potency (intensity) of the music they listened to.

Matthew was admitted to a psychiatric unit for a short-term placement. He had
been struggling with issues of anger and depression for several years and was
Matthew was the only son of conservative Jewish parents who could not understand his preoccupation with reggae music. Matthew spoke about his identity as a person from a Jamaican cultural perspective and explained that he was more relaxed and less driven than his parents' version of who he should be. He wanted to “enjoy life leisurely” and not be as conservative and predictable as he perceived his parents to be. Matthew also felt his music expressed who he really was and explained that it calmed him when he became worried about his inability to do well at school or have friends.

Frankie was a young man who was diagnosed with Oppositional Defiant Disorder and Attention Deficient Disorder with Hyperactivity. Frankie claimed to be in the Cripps gang but neither his parents nor the staff at his school believed this to be true. He was a young white male who seemed to have assumed the manners that corresponded to his perception of a hardcore rap singer. He was proud of his sexual involvement with many girls and is already a father at 15 years and the mother is 14-years old. It appeared that he obtained information about the world from his preference for hardcore rap music and he described his music as “pumping” him up. He loves the music of the current hardcore rap bands of Young Buck and Ghetto Boys. The romantic aspects that Frankie may derive from his music listening is that girls are to be used, which contributes to his
image as a cool guy. Rap music is seen as often critical of women and as overplaying the importance of male friendships (Arnett, 2004).

These clinical examples illustrate the value of the potency and romance factors from the ASDS as both Matthew and Frankie seem to react more emotionally to these aspects of their favourite music choices. Matthew also felt the potency and romance of the music of his choice and felt he received valuable information from his music. Frankie’s music preferences centered on hardcore rap and may have been one of the means he obtained information about his social world. Frankie also described feeling pumped by music, claiming that he would never back down from any fight regardless of how outnumbered he was. Frankie has admitted to feeling that he is living in a dangerous part of Toronto and that music makes him feel better about himself and less powerless regarding what could happen to him at any time.

In summary, these two separate groups of adolescents described the role and importance of music in their lives differently based on their psychological state. Larson (1995) makes an interesting suggestion that music is a way through which adolescents can explore different roles as a means of trying on identities. For example, the shy adolescent can feel “powerful” while he listens to music while pretending to be his favourite metal band singer. Similarly for the awkward adolescent, she can feel confident while imitating the dance moves of her favourite pop singer. Or for Frankie, who underneath his bravado, will sometimes
admit that he does not feel safe in his neighbourhood, listening to hardcore rap makes him feel less powerless and more in control of things than he may really be. The role of music for many adolescents is central to how they understand themselves and their social worlds.

It is essential that practitioners working with youth be aware of the role of music for many adolescents and of music's place in helping these youth cope with challenging aspects of their lives. It is imperative that there be an understanding of the role music has for each adolescent, for instance whether it is a major coping strategy or a means to regulate their emotional state. Music may make the adolescent feel less alone and feel more understood in ways that words alone could not. Music may be a powerful way of expressing difficult emotions or evoking feelings that have become numb from the ongoing wearing down by disturbing events in their lives. For some adolescents who are isolated or who have few friendships, music may be a way of finding out about their social world and of developing an identity not based on regular social interactions with friends. Many adolescents have stated that they can guess what music another adolescent listens to by how they look, thus making music preferences an important aspect of peer identity as well as a way of expressing something about self-identity. The “goth” teenager for example, may attend school regularly and return home by curfew but their dress and deportment also expresses something defiant in ways that the adolescent might not be able to verbalize. Many adolescents feel part of their peer group as a function of their music taste and
dress accordingly. It is vital to explore with an adolescent whether their identity is based partly on their musical tastes and how they reflect on what this means for them.

Possible ways for practitioners to incorporate the findings from this research include:

- Asking an adolescent about their favourite music and artist and exploring what he or she like about the music and artist;
- Having an adolescent bring in their favourite song and listen with them;
- Asking about music’s role in the adolescent’s emotional regulation – i.e., do they listen when upset or sad or happy?
- Exploring with who an adolescent listens to music and how often;
- Questioning an adolescent about whether his or her clothing style reflects his or her music preferences and whether it is similar to his or her friends;
- Wondering about how committed to school the adolescent was or did he or she derive their self-esteem from music involvement
- Exploring music’s importance and its role in an adolescent’s sense of self.

Many adolescents may be reluctant participants in therapy and it is crucial for the clinician to find ways to connect to them. One such means may be through an exploration of their favourite music and artists. This exploration may provide descriptors about the adolescent that they are reluctant to put into words or are unable to express. It may be a critical means of entering their world and
building therapeutic rapport. For some adolescents, music is something that saves them every day. Taking an interest in their music preferences demonstrates to the adolescent that the clinician cares and wishes to get to know their world.

**Limitations of the Research**

The obvious limitation of the research is how long ago the research was done as it was completed in the mid-1990s. The music utilized is clearly out of date but the genres are still relevant. This area of research is hampered by different definitions of popular music genres and how preference is determined. For example, one adolescent’s version of what heavy metal music is may be different for another adolescent. Recent research by Mulder and colleagues (2008) from the Netherlands has focused on musical dimensions for preference ratings and this appears to be a promising way to continue in this area of research. In particular, the musical dimensions they found were clustered by music genres liked as well as music genres disliked. One dimension, for example, was Urban in which the adolescents reported liking hip hop/rap and disliking rock music. Self-report measures tended to dominate this area of research, which is problematic given the issues of demand characteristics and the controversy surrounding the affects of popular music on adolescents. A limitation of my research is the unique measures I employed for both personality and preference ratings. Although these measures provided interesting results, they were difficult to compare with other research because other researchers had not utilizes these
measures. This research was exploratory and clearly indicated that more research is needed with adolescents using popular music and it needs to be conducted outside of the research lab.

**Future Research**

This study could be replicated with the same categories of three groups but have larger numbers in each group and include the specific diagnoses of the psychiatric adolescents. I would also do the BDI with the psychiatrically ill adolescents. The personality measure could be more relevant to previous research as well as utilizing a standard preference measure replicating the dimensions found by the current music research of Desling and colleagues (2008) in conjunction with having the adolescents listen to current popular music selections. It is vital that future studies employ the multivariate approach and include developmental variables crucial to adolescent development.

Brown and Hendee (1989) have suggested that the effects of music and its lyrics on teenagers is subtle and cumulative and that current research cannot measure these effects unless it was done by a carefully controlled longitudinal study. They did acknowledge that this was unrealistic but they believed that the media does affect some adolescents. They advised physicians to note the music preferences of their adolescent patients. Other researchers remain concerned about how to measure the negative messages in music because of the pervasiveness of music and its individual appeal and meaning (Christenson & Roberts, 1998; North &
Hargreaves, 2008; Schwartz & Fouts, 2003). As an important agent in adolescent socialization, however, the negative messages of rock music should not be dismissed. Other researchers also agree that this area needs to be explored on how the media affects children and adolescents including ongoing content analysis of violence, portrayal of women and relationships, casual sex and drug usage in television programming, movies and popular music/videos (Christenson & Roberts, 1998; North & Hargreaves, 2008; Strasburger & Donnerstein, 1999; Villani, 2001).

Finally, North and Hargreaves (2008) postulated that there is continual interaction between the music, listener, and listening situation. This study attempted to capture some of this dynamic but did not measure how the listening situation impacted on the results. I agree with North and Hargreaves (2008) that there is a strong need for social psychology input into research on music preference with adolescents and popular music using well-established psychological measures for both the individual and the music used.
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APPENDIX “A”

CONSENT FORM

This consent form is to be used as part of the research study for a doctoral dissertation at the University of Toronto. The research is to be an examination of several aspects of adolescent development including music preference, feelings and attitudes. This study will entail the use of paper and pencil tests as well as a segment which will involve the listening to various types of music.

I, _____________________________, give my consent to participate in the above-mentioned study. I understand that this study is strictly confidential and for research purposes only. No individual will be identified although the research results may be published. I am also aware that my participation in this study is completely separate and not, in any way, contingent upon my treatment at the Sunnybrook Medical Centre’s Adolescent Psychiatry Unit.

_____________________________  __________________________
Participant’s Signature           Witness

______________________________
Parent’s Signature

________________________________
Date
APPENDIX “B”

CONSENT FORM

This consent form is to be used as part of the research study for a doctoral dissertation at the University of Toronto. The research is to be an examination of several aspects of adolescent development including music preference, feelings and attitudes. This study will entail the use of paper and pencil tests as well as a segment which will involve the listening to various types of music.

I, _____________________________, give my consent to participate in the above-mentioned study. I understand that this study is strictly confidential and for research purposes only. No individual will be identified although the research results may be published. I am also aware that my participation in this study is completely separate and that I can withdraw at any time.

_____________________________  __________________________
Participant’s Signature           Witness

______________________________
Parent’s Signature

______________________________
Date
APPENDIX “C”

WASHINGTON UNIVERSITY SENTENCE COMPLETION TEST

Form 81 for men – Form 81 for women changes applicable pronouns

Name__________________________Age___Marital Status___Education_____

Instructions: Complete the following sentences.

1. When a child will not join in group activities
2. Raising a family
3. When I am criticized
4. A man’s job
5. Being with other people
6. The thing I like about myself is
7. My mother and I
8. What gets me into trouble is
9. Education
10. When people are helpless
11. Women are lucky because
12. A good father
13. A girl has a right to
14. When they talked about sex, I
15. A wife should
16. I feel sorry
17. A man feels good when
18. Rules
19. Crime and delinquency could be halted if
20. Men are lucky because
21. I just can’t stand people who
22. At times he worried about
23. I am
24. A woman feels good when
25. My main problem is
26. A husband has a right to
27. The worst thing about being a man
28. A good mother
29. When I am with a woman
30. Sometimes he wished that
31. My father
32. If I can’t get what I want
33. Usually he felt that sex
34. For a woman a career is
35. My conscience bothers me if
36. A man should always
WALKER MUSIC QUESTIONNAIRE

Name: ____________________

1. The lyrics are the most important part of a song to me.
   STRONGLY AGREE |___|___|___|___|___|___|___| STRONGLY DISAGREE

2. I like 1960-70's music.
   STRONGLY AGREE |___|___|___|___|___|___|___| STRONGLY DISAGREE

3. I listen to music.
   ALMOST ALWAYS                                ALMOST ALWAYS
   ALONE          |___|___|___|___|___|___|___| WITH FRIENDS

4. I have to be able to dance to a song before I will listen to it again.
   STRONGLY AGREE |___|___|___|___|___|___|___| STRONGLY DISAGREE

5. On the whole I quite enjoy school.
   STRONGLY AGREE |___|___|___|___|___|___|___| STRONGLY DISAGREE

6. I would love to be in a rock video.
   STRONGLY AGREE |___|___|___|___|___|___|___| STRONGLY DISAGREE

7. I find my favourite music makes me feel sexy.
   STRONGLY AGREE |___|___|___|___|___|___|___| STRONGLY DISAGREE
8. What gets my attention is the tune.
   STRONGLY AGREE |___|___|___|___|___|___|___| STRONGLY DISAGREE

9. Music has a strong influence on my moral values.
   STRONGLY AGREE |___|___|___|___|___|___|___| STRONGLY DISAGREE

10. Most of the lessons you do at school are a complete waste of time.
    STRONGLY AGREE |___|___|___|___|___|___|___| STRONGLY DISAGREE

11. My favourite music makes me feel aggressive.
    STRONGLY AGREE |___|___|___|___|___|___|___| STRONGLY DISAGREE

12. Music means more to me than it does for my parents.
    STRONGLY AGREE |___|___|___|___|___|___|___| STRONGLY DISAGREE

13. People know what kind of music I like by the way I dress.
    STRONGLY AGREE |___|___|___|___|___|___|___| STRONGLY DISAGREE

14. I have learnt a lot about love and relationships from listening
to music.
    STRONGLY AGREE |___|___|___|___|___|___|___| STRONGLY DISAGREE

15. I make a point of reading the lyrics on a tape/CD/album cover.
    STRONGLY AGREE |___|___|___|___|___|___|___| STRONGLY DISAGREE

16. School is the same, day after day, week after week.
    STRONGLY AGREE |___|___|___|___|___|___|___| STRONGLY DISAGREE
17. Music should not try to make a political statement in my opinion.

STRONGLY AGREE |___|___|___|___|___|___|___| STRONGLY DISAGREE

18. I have my favourite bands and listen to their music only.

STRONGLY AGREE |___|___|___|___|___|___|___| STRONGLY DISAGREE

19. The best part of music is the sound or beat.

STRONGLY AGREE |___|___|___|___|___|___|___| STRONGLY DISAGREE

20. Listening to music sometimes makes me feel sad and lonely.

STRONGLY AGREE |___|___|___|___|___|___|___| STRONGLY DISAGREE

21. I listen to the radio more than 5 hours per week.

STRONGLY AGREE |___|___|___|___|___|___|___| STRONGLY DISAGREE

22. Most of the time at school they treat you like a kid.

STRONGLY AGREE |___|___|___|___|___|___|___| STRONGLY DISAGREE

23. My friends and I like the same kinds of music.

STRONGLY AGREE |___|___|___|___|___|___|___| STRONGLY DISAGREE

24. I can predict what kind of music another adolescent listens to by how they look.

STRONGLY AGREE |___|___|___|___|___|___|___| STRONGLY DISAGREE

25. What I like about my favourite music is the artist.

STRONGLY AGREE |___|___|___|___|___|___|___| STRONGLY DISAGREE
26. I am usually glad to get back to school after the holidays.

   STRONGLY AGREE |____ |____ |____ |____ |____ |____ |____ | STRONGLY DISAGREE

27. I listen to the same type of music as most of the others in my school/neighbourhood.

   STRONGLY AGREE |____ |____ |____ |____ |____ |____ |____ | STRONGLY DISAGREE

28. Teachers at school do not really try hard enough to make the lessons interesting.

   STRONGLY AGREE |____ |____ |____ |____ |____ |____ |____ | STRONGLY DISAGREE

29. I like music that questions what is going on in my life and understands what it is like to be a teenager right now.

   STRONGLY AGREE |____ |____ |____ |____ |____ |____ |____ | STRONGLY DISAGREE

30. I like rap music.

   STRONGLY AGREE |____ |____ |____ |____ |____ |____ |____ | STRONGLY DISAGREE

31. I listen to music because it expresses how I feel.

   STRONGLY AGREE |____ |____ |____ |____ |____ |____ |____ | STRONGLY DISAGREE

32. I like pop/dance music.

   STRONGLY AGREE |____ |____ |____ |____ |____ |____ |____ | STRONGLY DISAGREE

33. My musical interests reflect who I am, for example, how I dress and how I view the world.

   STRONGLY AGREE |____ |____ |____ |____ |____ |____ |____ | STRONGLY DISAGREE
34. I listen to either tapes, CD's or records at least 10 hours per week.

STRONGLY AGREE |___|___|___|___|___|___|___| STRONGLY DISAGREE

35. I like videos that are energetic and have lots of physical contact in them.

STRONGLY AGREE |___|___|___|___|___|___|___| STRONGLY DISAGREE

36. I cannot wait to get out of school for good and start work.

STRONGLY AGREE |___|___|___|___|___|___|___| STRONGLY DISAGREE

37. I think being a rock star would be the most glamorous and thrilling job in the world.

STRONGLY AGREE |___|___|___|___|___|___|___| STRONGLY DISAGREE

38. I watch music videos more than 5 hours per week.

STRONGLY AGREE :___:___|___|___|___|___|___| STRONGLY DISAGREE

39. I like new wave/post punk music.

STRONGLY AGREE |___|___|___|___|___|___|___| STRONGLY DISAGREE

40. My parents and I like very different types of music.

STRONGLY AGREE |___|___|___|___|___|___|___| STRONGLY DISAGREE

41. Music videos express the meaning of the music and help make it clear.

STRONGLY AGREE |___|___|___|___|___|___|___| STRONGLY DISAGREE

42. The most exciting music for me is music that makes me feel angry.

STRONGLY AGREE |___|___|___|___|___|___|___| STRONGLY DISAGREE
43. I prefer watching videos to most other programs on television.

STRONGLY AGREE |___|___|___|___|___|___|___| STRONGLY DISAGREE

44. I like heavy metal/hard rock music.

STRONGLY AGREE |___|___|___|___|___|___|___| STRONGLY DISAGREE

45. I often (more than 50% of my time) daydream about members of my favourite band.

STRONGLY AGREE |___|___|___|___|___|___|___| STRONGLY DISAGREE

46. My favourite type of music makes me feel happy.

STRONGLY AGREE |___|___|___|___|___|___|___| STRONGLY DISAGREE

47. Music is an important part of my identity.

STRONGLY AGREE |___|___|___|___|___|___|___| STRONGLY DISAGREE
APPENDIX “E”

SCHOOL COMMITMENT SCALE

1. Most of the lessons I do at school are a complete waste of time.
2. On the whole I quite enjoy school.
3. School is the same, day after day, week after week.
4. Most of the time at school they treat you like a kid.
5. I am usually glad to get back to school after the holidays.
6. Teachers at school don't really try hard enough to make lessons interesting.
7. I can't wait to get out of school and start work.
APPENDIX “F”

ADOLESCENT SEMANTIC DIFFERENTIAL SCALE

Added Adjectives Relevant to Adolescent Development

<table>
<thead>
<tr>
<th>Sexy</th>
<th>Not Sexy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meaningful</td>
<td>Not Meaningful</td>
</tr>
<tr>
<td>Moral Issues</td>
<td>Not Moral Issues</td>
</tr>
<tr>
<td>Violent</td>
<td>Not Violent</td>
</tr>
<tr>
<td>Romantic</td>
<td>Not Romantic</td>
</tr>
<tr>
<td>Passionate</td>
<td>Not Passionate</td>
</tr>
<tr>
<td>Fantasy</td>
<td>Not Fantasy</td>
</tr>
<tr>
<td>Nostalgic</td>
<td>Not Nostalgic</td>
</tr>
</tbody>
</table>
APPENDIX “G”

SONGS and LYRICS USED in ASDS

1. **Song Title:** Pray  
   **Artist:** MC Hammer  
   **Album:** Please Hammer, Don’t Hurt ’Em

   That's word, we pray (pray, pray)  
   We got to pray  
   Just to make it today  
   I said we pray (pray) ah, yeah, pray (pray)  
   We got to pray  
   Just to make it to pray  
   That's word, we pray

   All my life I wanted to make it to the top  
   (That's word, we pray)  
   Some said I wouldn't  
   They told me no, but I didn't stop  
   (That's word, we pray)  
   Working hard, making those movies everyday  
   (That's word, we pray)  
   And on my knees every night, you know I pray

   That's word, we pray (pray)  
   Ah, yeah, pray (pray) we got to pray  
   Just to make it today  
   I said we pray (pray) ah, yeah, pray (pray)  
   We got to pray  
   Just to make it today  
   That's word, we pray

   Now I just think that you  
   Can do what ever you want  
   (That's word, we pray)  
   I'm bustin' these rhymes  
   Making this money and I won't  
   (That's word, we pray)  
   Forget my people or my town or my ways  
   (That's word, we pray)  
   And on my knees, every night I'm still gonna pray

   That's word, we pray (pray)  
   Ah, yeah, pray (pray) we got to pray
Just to make it today
I said we pray (pray) ah, yeah, pray (pray)
We got to pray
Just to make it today
That's word, we pray

Time and time and time and time again
(That's word, we pray)
I kept on knocking, but
These people wouldn't let me in
(That's word, we pray)
I tried and tried and tried and tried to make a way
(That's word, we pray)
But nothing happened till that day I prayed

That's word, we pray(pray)
Ah, yeah, pray (pray) we got to pray
Just to make it today
I said we pray (pray) ah, yeah, pray (pray)
We got to pray
Just to make it today
That's word, we pray

Children dying, oh, so fast from this or that
(That's word, we pray)
Needing that money
Smoking that dope and doing that crack
(That's word, we pray)
Ten years old stand outside
Better look out
(That's word ,we pray)
Dead and gone, never had a chance
What's it all about?

That's word, we pray (pray) ah, yeah, pray
We need to pray
Just to make it today

I need to pray (pray) ah, yeah, pray
We need to pray
Just to make it today
That's word, we pray

That's word, we pray (x3)

That's word, we pray (pray) ah, yeah, pray
We need to pray
Just to make it today
I need to pray (pray) ah, yeah, pray
We need to pray
Just to make it today
That's word, we pray

On a mission start to doubt here we go
(That's word, we pray)
Kicking back, read these words we need to know
(That's word, we pray)
Living high, living good, living long
(That's word, we pray)
Take a minute, bust a prayer
And you're good to go

That's word, we pray (pray) ah, yeah, pray
We need to pray
Just to make it today
I need to pray (pray), ah, yeah, pray
We need to pray
Just to make it today
That's word, we pray

We're sending this one out to the Lord
(That's word, we pray)
And we thank you and we know we need to pray
(That's word, we pray)
Cause all the blessings that are good they come from above
(That's word, we pray)
And once again we want
To say "thank you" to the Lord with all our love

That's word, we pray (pray) ah, yeah, pray
We need to pray
Just to make it today
I need to pray (pray), ah, yeah, pray
We need to pray
Just to make it today
That's word, we pray

That's word, we pray (pray, pray) (x4)
That's word, we pray
2. **Song Title: Space Oddity**  
**Artist:** David Bowie  
**Album:** Space Oddity

Ground control to Major Tom  
Ground control to Major Tom  
Take your protein pills and put your helmet on

Ground control to Major Tom  
Commencing countdown, engines on  
Check ignition and may God's love be with you

Ten, nine, eight, seven, six, five,  
Four, three, two, one, liftoff

This is ground control to Major Tom  
You've really made the grade  
And the papers want to know whose shirts you wear  
Now it's time to leave the capsule if you dare

"this is Major Tom to ground control  
I'm stepping through the door  
And I'm floating in a most peculiar way  
And the stars look very different today

For here  
Am I sitting in a tin can  
Far above the world  
Planet earth is blue  
And there's nothing I can do

Though I'm past one hundred thousand miles  
I'm feeling very still  
And I think my spaceship knows which way to go  
Tell me wife I love her very much she knows"

Ground control to Major Tom  
Your circuit's dead, there's something wrong  
Can you hear me, Major Tom?  
Can you hear me, Major Tom?  
Can you hear me, Major Tom?  
Can you....

"here am I floating round my tin can  
Far above the moon
Planet earth is blue
And there's nothing I can do."

3. **Song Title: Entrantment Of Evil**  
   **Artist:** Incantation  
   **Album:** Onward to Golgotha

   Evil one enters the helpless soul, merciless, the giver takes his toll.  
   Reveals the evil, condemns the victim.  
   Corruption of the holy, destruction of gods.  
   He is the giver of the living torment.  
   Deny the blackest wrath, devour sweet suffering...  
   Endure the precious soul, break through sacred flesh.  
   Exorcist, the demons wrath, entrantment of the evil one...  
   They call on the beginning of burning.  
   Enter the maze, the realms of darkness.

4. **Song Title: Nothing Compares 2 U**  
   **Artist:** Sinéad O'Connor  
   **Album:** I Do Not Want What I Haven’t Got

   It's been seven hours fifteen days  
   since u took your love away  
   I go out every night sleep all day  
   since u took your love away  
   since u been gone I can do whatever I want  
   I can see whomever I choose  
   I can eat my dinner in a fancy restaurant  
   but nothing  
   I said nothing can take away these blues,  
   'cos nothing compares  
   nothing compares 2 u  

   it's been so lonely without u here  
   like a bird without a song  
   nothing can stop these lonely tears from falling  
   tell me baby where did I go wrong  
   I could put my arms around every boy I see  
   but they'd only remind me of you  
   I went to the doctor guess what he told me  
   guess what he told me  
   he said girl u better try to have fun  
   no matter what u do
but he's a fool
'cos nothing compares
nothing compares 2 u

all the flowers that u planted mama
in the back yard
all died when u went away
I know that living with u baby was sometimes hard
but I'm willing to give it another try
'cos nothing compares
nothing compares 2 u

5. **Song Title:** Justify My Love  
**Artist:** Madonna  
**Album:** Immaculate Collection

I wanna kiss you in Paris  
I wanna hold your hand in Rome  
I wanna run naked in a rainstorm  
Make love in a train cross-country  
You put this in me  
So now what, so now what?

(chorus)

Wanting, needing, waiting  
For you to justify my love

Hoping, praying  
For you to justify my love

I want to know you  
Not like that  
I don't wanna be your mother  
I don't wanna be your sister either  
I just wanna be your lover  
I wanna be your baby  
Kiss me, that's right, kiss me

(chorus)

Yearning, burning  
For you to justify my love

What are you gonna do?
What are you gonna do?
Talk to me -- tell me your dreams
Am i in them?
Tell me your fears
Are you scared?
Tell me your stories
I'm not afraid of who you are
We can fly!

Poor is the man
Whose pleasures depend
On the permission of another
Love me, that's right, love me
I wanna be your baby

(chorus)
I'm open and ready
For you to justify my love
To justify my love
Wanting, to justify
Waiting, to justify my love
Praying, to justify
To justify my love
I'm open, to justify my love

6. **Song Title:** Nights in White Satin
**Artist:** The Moody Blues
**Album:** Days of Future Passed

Nights in white satin, never reaching the end
Letters I've written, never meaning to send
Beauty I'd always missed, with these eyes before
Just what the truth is, I can't say anymore
'Cause I love you, yes I love you, oh, how I love you

Gazing at people, some hand in hand
Just what I'm going through, they can't understand
Some try to tell me, thoughts they cannot defend
Just what you want to be you will be in the end
And I love you, yes I love you
Oh, how I love you, oh, how I love you

Nights in white satin, never reaching the end
Letters I've written, never meaning to send
Beauty I've always missed, with these eyes before
Just what the truth is, I can't say anymore
'Cause I love you, yes I love you
Oh, how I love you, oh, how I love you

'Cause I love you, yes I love you
Oh, how I love you, oh, how I love you

{Epilogue, spoken}
Breathe deep the gathering gloom
Watch lights fade from every room
Bedsetter people look back and lament
Another day's useless energy's spent
Impassioned lovers wrestle as one
Lonely man cries for love and has none
New mother picks up and suckles her son
Senior citizens wish they were young
Cold-hearted orb that rules the night
Removes the colors from our sight
Red is grey and yellow white
But we decide which is right

7. **Song Title:** Fuck tha Police  
**Artist:** N.W.A  
**Album:** Straight Outta Compton

Right about now, NWA court is in full effect.  
Judge Dre presiding in the case of NWA versus the police department.  
Prosecuting attorneys are MC Ren, Ice Cube, and Eazy muthafuckin E.  
Order, order, order. Ice Cube, take the muthafuckin stand.  
Do you swear to tell the truth, the whole truth  
And nothin but the truth so help your black ass?  
(You're goddamn right!)  
Why don't you tell everybody what the fuck you gotta say?

Fuck tha police  
Comin straight from the underground  
Young nigga got it bad cuz I'm brown  
And not the other color so police think  
They have the authority to kill a minority

Fuck that shit, cuz I ain't tha one  
For a punk muthafucka with a badge and a gun  
To be beatin on, and throwin in jail  
We could go toe to toe in the middle of a cell
Fuckin with me cuz I'm a teenager
With a little bit of gold and a pager
Searchin my car, lookin for the product
Thinkin every nigga is sellin narcotics

You'd rather see me in the pen
Then me and Lorenzo rollin in the Benzo
Beat tha police outta shape
And when I'm finished, bring the yellow tape
To tape off the scene of the slaughter
Still can't swallow bread and water

I don't know if they fags or what
Search a nigga down and grabbin his nuts
And on the other hand, without a gun they can't get none
But don't let it be a black and a white one
Cuz they slam ya down to the street top
Black police showin out for the white cop

Ice Cube will swarm
On any muthafucka in a blue uniform
Just cuz I'm from the CPT, punk police are afraid of me
A young nigga on a warpath
And when I'm finished, it's gonna be a bloodbath
Of cops, dyin in LA
Yo Dre, I got somethin to say

Fuck the police [4x]

(Example of scene one:
(Pull your goddamn ass over right now.)
(Ah shit, what the fuck you pullin me over for?)
(Cuz I feel like it. Just sit your ass on the curb and shut the fuck up.)
(Man, fuck this shit.)
(Alright smartass, I'm takin' your black ass to jail.)
M. C. Ren, will you please give your testimony to the jury about this fucked up
Incident.)

Fuck tha police and Ren said it with authority
Because the niggaz on the street is a majority.
A gang, is with whoever I'm stepping
And the motherfuckin' weapon
Is kept in a stash box, for the so-called law
Wishin' Ren was a nigga that they never saw
Lights start flashin' behind me
But they're scared of a nigga so they mace me to blind me
But that shit don't work, I just laugh
Because it gives em a hint not to step in my path

To the police I'm sayin' fuck you punk
Readin' my rights and shit, it's all junk
Pullin' out a silly club, so you stand
With a fake assed badge and a gun in your hand

But take off the gun so you can see what's up
And we'll go at it punk, I'ma fuck you up

Make ya think I'm a kick your ass
But drop your gat, and Ren's gonna blast
I'm sneaky as fuck when it comes to crime
But I'm a smoke em now, and not next time

Smoke any muthafucka that sweats me
Or any assho that threatens me
I'm a sniper with a hell of a scope
Takin' out a cop or two, they can't cope with me

The muthafuckin' villian that's mad
With potential to get bad as fuck
So I'm a turn it around
Put in my clip, yo, and this is the sound
Ya, somethin' like that, but it all depends on the size of the gat

Takin' out a police would make my day
But a nigga like Ren don't give a fuck to say

Fuck the police [4x]

(Yo, man, what you need?
Police, open now. We have a warrant for Eazy-E's arrest.
Get down and put your hands up where I can see em.
Just shut the fuck up and get your muthafuckin' ass on the floor.
[huh?]!)

(Yo Eazy-E, why don't you step up to the stand
And tell the jury how you feel about this bullshit.)

I'm tired of the muthafuckin' jackin'
Sweatin' my gang while I'm chillin' in the shackin'
Shining tha light in my face, and for what
Maybe it's because I kick so much butt

I kick ass, or maybe cuz I blast
On a stupid assed nigga when I'm playin with the trigga
Of any Uzi or an AK
Cuz the police always got somethin stupid to say

They put up my picture with silence
Cuz my identity by itself causes violence
The E with the criminal behavior
Yeah, I'm a gansta, but still I got flavor

Without a gun and a badge, what do ya got?
A sucka in a uniform waitin to get shot,
By me, or another nigga.
And with a gat it don't matter if he's smarter or bigger
[MC Ren: Size don't mean shit, he's from the old school, fool]

And as you all know, E's here to rule
Whenever I'm rollin, keep lookin in the mirror
And there's no cue, yo, so I can hear a
Dumb muthafucka with a gun

And if I'm rollin off the 8, he'll be tha one
That I take out, and then get away
And while I'm drivin off laughin
This is what I'll say

Fuck the police [4x]

(The verdict.
The jury has found you guilty of bein a redneck,
Whitebread, chickenshit muthafucka.
Wait, that's a lie. That's a goddamn lie.
I want justice! I want justice!
Fuck you, you black muthafucka!)

Fuck the police [3x]

8. **Song Title:** Rush Rush  
**Artist:** Paula Abdul  
**Album:** Spellbound
You're the whisper of a
Summer breeze
You're the kiss that puts my
Soul at ease
What I'm saying is I'm
In to you
Here's my story and the
Story goes
You give love, you get love
And more than
Heaven knows
You're gonna see
I'm gonna run, I'm gonna try
I'm gonna take this love
Right to ya
All my heart, all the joy
Oh baby, baby please

(chorus)

Rush, rush
Hurry, hurry lover
Come to me
Rush, rush
I wanna see, I wanna see ya
Get free with me
Rush, rush
I can feel it, I can feel you
All through me
Rush, rush
Ooh what you do to me

And all I want from you is
What you are
And even if you're right
Next to me
You're still too far away
If I'm not inside your arms
I get dramatic baby,
Yes I know
But I need you, I want you
Ooh man, I love you so
Ooh, ooh
You're gonna see
I'm gonna run, I'm gonna try
I'm gonna take this love
Right to ya
All my heart, all the joy
Ooh baby, baby please

(chorus)

When you kiss me
Up and down
Turn my senses all around
Oh baby, oh baby
I don't know
Just how or why
But no one else
Has touched me
So deep, so deep
So deep inside
You're gonna see
I'm gonna run
I'm gonna try
I'm gonna take this love
Right to ya
All me heart, all the joy
Oh baby baby please

9. **Song Title: Gypsy Woman (She’s Homeless)**  
**Artist:** Crystal Waters  
**Album:** Surprise

she wakes up early every morning
just to do her hair now, because she cares you all
her day wouldn't be right
without her make up - shes never out of makeup
shes just like you and me but she's homeless
she homeless
and she stands their singing for money
la da dee la doo dow, la da dee la do dow

you try hard not to care about the homeless ’cause you got your own mess
you barley make enough for
well is she all lies, should you apologise
and then her smile says please
as she stands their singing for money
la da dee la doo dow, la da dee la do dow

in my sleep i see her begging
reaching, please
although the fault is not mine i ask god why
god why
shes just like you and me but she's homeless
she homeless
and she stands their singing for money
la da dee la doo dow, la da dee la do dow

10. **Song Title:** People are still having sex  
**Artist:** LaTour  
**Album:** LaTour

Have you noticed  
That people are still having sex?  
All the denouncement  
Had absolutely no effect.  
Parents and counselors  
Constantly scorn them,  
But people are still having sex  
And nothing seems to stop them.

Do you realize  
That people are still having sex?  
They’ve been told not to,  
Perhaps they are perplexed,  
When you see them holding hands  
They are making future plans  
To engage in the activity;  
Do you understand me?

People are still having sex  
Lust keeps on lurking,  
Nothing makes them stop;  
This AIDS thing’s not working.

People are stilll having sex;  
It’s been going on for quite a while.  
Perhaps it is quite fashionable.  
It hasn’t’ gone out of style

It’s a fact that people are still having sex;  
It’s rather obvious—  
It’s just what one expects.  
The evidence is all around  
That everyone in everytown
Has had it at one time or another in their life.

At this very moment,
People are still have sex.
In a downtown condo
Or in a street in the projects
Even though you can't see them
Or hear their breathing sounds,
Someone in this world
Is having sex right now.

People are still having sex.
People are still having sex.
People are still having sex.
People are still having sex.

Sex, sex, sex, sex, sex…