

THE RELATIONSHIP OF MUSIC PREFERENCE
AND MUSIC FUNCTION WITH COPING
IN UNIVERSITY STUDENTS

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Submitted to the Faculty of the
Graduate College of the
Oklahoma State University
in partial fulfillment of
the requirements for
the Degree of
DOCTOR OF PHILOSOPHY
July 2009

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ACKNOWLEDGMENTS

I am humbled when I reflect upon all of those whose support has been essential to the completion of this project. First and foremost, this would not have been possible without the support and love of my family, particularly my parents Pat and Diane Mulligan. I cannot thank them enough.

I am very grateful to Dr. Carrie Winterowd for her unwavering encouragement, empathy, and patience. She has taught me a great deal. Dr. Don Boswell and Dr. John Romans have served as guides and mentors throughout this project and my time in graduate school. Dr. Dale Fuqua's expertise in research methods and statistical analyses has been invaluable. I consider myself fortunate to have had these four individuals on my committee.

Thank you to Dr. Trevor Richardson, Ms. Marie Basler, and several research assistants who did essential legwork for me on campus. Thanks to the instructors who allowed me to recruit participants from their courses, particularly Dr. Stephen Haseley who came through in the clutch.

I want to thank my past and present coworkers at OSU, Texas State, and Valparaiso. I am also thankful for the support of many friends, including Dr. Rick Pongratz and soon-to-be Dr. Kasia Bugaj, who provided insight, encouragement, and humor during particularly challenging times on this project.

This dissertation is dedicated to the memory of Dr. Jack Davis, an excellent therapist and supervisor who understood the value of music in people's lives.

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INTRODUCTION

In recent years, psychologists and other mental health professionals have become more interested in and aware of something musicians and music listeners have known for centuries—Music has strong ties with emotion and can be a very effective therapeutic tool. Studies have shown that music elicits strong emotion more consistently and frequently than other forms of art (Frey, 1985; Williams & Morris, 1996). Dutta and Kanungo (1975), Gabrielsson (1991), and Rubin and Kozin (1984), among others, have shown that people associate music with particularly strong emotions (i.e., joy, grief, sadness, anger) related to life events or contexts, and music can provide a trigger to the recall of these events and their accompanying emotions.

This knowledge has led to the growth of the field of music therapy in mental health settings. Music has been used as an effective therapeutic tool for a number of mental health issues, including anxiety (Barrera, Rykov, & Doyle, 2002), chronic pain (Colwell, 1997), behavioral concerns in hospitalized children (Robb, 2000), depressive symptoms in persons with dementia (Ashida, 2000), and negative symptoms of chronic schizophrenia (Hayashi et al., 2001). Several theorists/researchers have presented frameworks for incorporating music into counseling and psychotherapy for a variety of

problems including adjustment to divorce (Delucia-Waack, 2001), grief (Bright, 1995), anxiety in surgery patients (Rodgers, 1995), and anger management (Hakvoort, 2002).

Music Function

As shown above, music has been used to enhance people's emotional well-being. Music can also serve other important roles in people's lives, including cognitive, spiritual, physical, behavioral, and social functions. Some researchers have found that music exposure enhances cognitive performance and/or academic achievement (Oliver, 1997; Schrieber, 1988), while other researchers have not found such a relationship (Bridgett & Cuevas, 2000; Johnson, 2000). Music may help students focus on mental tasks such as studying, depending on their learning styles.

Music's prominent social function across cultures and throughout history has been well documented (e.g., Storr, 1992, Levitin, 2006). Music is a medium to bring people together and it also has been used to promote a sense of community in some cultures.

Music also plays an important role in many people's religious and spiritual lives. St. Augustine described the role of music in church as an inspiration to one's spirit and devotion to God (Storr, 1992). Many of the famous compositions by western composers of the Classical era were composed for use in churches (Storr 1992). Much of the U.S. popular music of the 20th century, including country, blues, and rock and roll, descended from gospel music.

People frequently use music to accompany physical activities such as running, weightlifting, or other exercise. Music provides an outlet for people to do things (behavioral) such as sing and dance. In fact, music has been identified as very important leisure and lifestyle activity in and of itself (Rentfrow & Gosling, 2003). People spend

more time listening to music compared to a lot of other leisure activities (e.g., eating, hobbies) across situations (Rentfrow & Gosling, 2003).

Music Preferences

People have a wide range of preferences for the types of music they enjoy listening to. There is some evidence that music preferences cluster into genres or groups (Burge, Goldblat, & Lester, 2002; Rentfrow & Gosling, 2003). For example, Rentfrow and Gosling identified four music preference groups based on their factor analysis including “Intense and Rebellious” which included rock, alternative, and heavy metal music, “Upbeat and Conventional” which included country, soundtrack, religious, and pop music, “Energetic and Rhythmic” which included rap/hip-hop, soul/funk and electronica/dance music, and “Reflective and Complex” which included blues, jazz, classical, and folk music.

Music preferences have been associated with a number of variables including personal attributes (Rentfrow & Gosling, 2003), personality characteristics (Rentfrow & Gosling 2003; Schwartz & Fouts 2003; Zweigenhaft, 2008), interpersonal perceptions (Rentfrow & Gosling, 2006), self-views, and cognitive ability (Rentfrow & Gosling 2003), as well as suicidality (Burge et al., 2002).

No research to date has explored the relationship of music preferences and music function with coping, which is the purpose of the present study. It is important to understand the role of music preferences and the functions of music listening for college students and how these preferences and functions may affect their general coping abilities given the relevance of music in many college students’ lives.

Coping

Psychologists' interest in the ways people cope with stress has grown tremendously during the past few decades. Coping is a psychological construct that has been widely studied to explore individuals' efforts to deal with life stressors and daily events. Researchers have demonstrated the impact of coping on the outcome of a number of variables, including subjective well-being (Smenner, 2003), physical indicators of well-being (Sarid et al 2004; Semenchuk 1999), career decision-making (Robitschek & Cook 1999), problem-solving ability (Blankstein, Flett, & Watson, 1992), body image perceptions (Pikler & Winterowd 2003), and college satisfaction (Carter 1998). To date, little is known about the relationship between coping and engagement in exercise, art, music, sports, and hobbies. In this study, the relationship of music preferences and music function with general coping strategies in college students will be explored.

It is important to understand the relationships of music listening preferences and functions with general coping strategies because music may serve important psychological and biopsychosocial roles in helping college students cope with life stressors. If psychologists, music therapists, and other professionals can have a clearer understanding of the roles and functions of music and music preferences in college student's lives, they will be able to use this knowledge to better serve their college student clients, especially with regard to their coping efforts or strategies.

The purposes of this study are to: 1) explore the relationship between music preference components and coping strategies, 2) determine the component structure of

the functions of music listening, and 3) explore the relationship between the functions of music listening and coping strategies.

METHOD

Participants

A total of 208 undergraduate students at Oklahoma State University were recruited for voluntary participation in this study. Participants were recruited from Leadership Concepts, Educational Psychology, and World of Work classes in the College of Education. Of these participants, eight either omitted significant amounts of data in their responses or were age outliers and were removed prior to conducting the analyses of the study. Of the remaining 200 participants, the mean age was 19.97 with a standard deviation of 1.40 and a range of 18-24. In terms of gender, 67.5% of the students were female (n=135) and 32.5% were male (n=65).

The majority (79%, n=158) of the participants in this study identified themselves as Caucasian/White, 8.5% (n=17) were Caucasian/White and American Indian/Native American biracial individuals, 7.5% (n=15) were American Indian/Native American, 2% (n=4) were Asian/Asian American, 1.5% (n=3) were African American, and 1.5% (n=3) were Multiracial (not including the White/Indian bi-racial students). None of the participants identified as solely Hispanic/Latino/Latina.

Most of the participants (98.5%, n=197) reported their sexual orientation as Heterosexual, while 1% (n=2) reported as Lesbian, and 0.5% (n=1) as Bisexual. No participants identified as Gay men.

The overwhelming majority (94.5%, n=189) of participants noted their relationship status as single, while 3.5% (n=7) said that they live with a partner and 2% (n=4) reported being married. None of the participants identified themselves as separated, divorced, or widowed.

In terms of academic class, participants included freshman students (45%; n=90), sophomores (18%; n=36), juniors (28%; n=56), and seniors (9%; n=18). Regarding their living situation, 38% (n=76) of participants reported living in on-campus residence halls, 31.5% (n=63) off-campus (not with parent or guardian), 20.5% (n=41) in sorority or fraternity houses, 6.5% (n=13) off-campus with parent or guardian, and 3.5% (n=7) in on-campus apartments. When asked about the type of community in which they were primarily raised, 50% (n=100) of participants reported being from rural areas, which includes towns of less than 50,000 people that are not a part of a larger metropolitan area. An additional 27% (n=54) indicated being from suburban areas (next to a city of more than 50,000) and 22% (n=45) from an urban city of more than 50,000. One participant (0.5%) did not respond to this question.

Participants were asked to state their annual family income. On average, participants reported their family income range to be \$70,001 to \$80,000. In terms of the frequency distribution of income ranges, 1.5% (n=3) stated that their family earns less than \$10,000 per year; 2.5% (n=5) reported an annual family income in the range of \$10,000 to \$20,000; 6% (n=12) reported \$20,001 to \$30,000; 3.5% (n=7) reported \$30,001 to \$40,000; 7.5% (n=15) reported \$40,001 to \$50,000; 10.5% (n=21) reported \$50,001 to \$60,000; 9% (n=18) reported \$60,001 to \$70,000; 9.5% (n=19) reported \$70,001 to \$80,000; 7% (n=14) reported \$80,001 to \$90,000; 8% (n=16) reported

\$90,001 to \$100,000; 11% (n=22) reported \$100,000 to \$110,000; and 19% (n=38) reported a family income of \$110,001 and higher. Some participants (4.5%; n=9) did not respond to this item. See Table 1 for demographics of the sample.

Procedure

Approval for this study was obtained from the Oklahoma State University Institutional Review Board. Participants from undergraduate classes were invited to participate in a survey study exploring music use and coping. Those who were interested in participating completed a demographic page and four questionnaires. On the last page of the packet, participants were debriefed on the purpose of this study and were provided with a list of counseling resources. To insure that participants' responses could not be associated with their identities, participants were instructed not to write their names anywhere on the surveys.

Measures

Participants in this study completed a demographic page, the Short Test of Music Preferences (STOMP), the Music Function Questionnaire (MFQ), the Ways of Coping Questionnaire (WCQ) and the Depression, Anxiety, and Stress Scale – 21 (DASS 21).

Demographic Page. A demographic survey was used to collect information regarding age, sex, race, relationship status, sexual orientation, year in college (e.g., freshman, sophomore), living arrangement, type of community in which participant was raised, and annual family income. Participants were also asked to estimate the number of hours per week they spend listening to music.

Short Test of Music Preferences (STOMP; Rentfrow & Gosling, 2003). The STOMP is a 14 item measure of music preferences developed for use with college

students. Participants indicate their level of preference for each of 14 genres of music on a 7-point Likert scale (1 = not at all, 7 = a great deal). The 14 genres of music preferences measured include blues, jazz, classical, and folk, rock, alternative, and heavy metal), country, soundtrack, religious, and pop, rap/hip-hop, soul/funk, and electronica/dance.

The normative sample for the STOMP included 1,704 college undergraduates. (Rentfrow & Gosling, 2003). A factor analysis was conducted on the 14-item measure of music preferences. A four-factor solution emerged, accounting for 59% of the total variance in music preferences. These factors were named “Reflective and Complex” (i.e., blues, jazz, classical, and folk), “Intense and Rebellious” (i.e., rock, alternative, and heavy metal), “Upbeat and Conventional” (i.e., country, soundtrack, religious, and pop), and “Energetic and Rhythmic” (i.e., rap/hip-hop, soul/funk, and electronica/dance).

Of the original normative sample, 118 of these participants returning 3 weeks later to be tested a second time. The three-week test retest reliability coefficients ranged from .77 to .89 for each of the four factors.

In a follow-up study with 1,383 college undergraduates, Rentfrow & Gosling (2003) readministered the STOMP. Confirmatory factor analysis was found to support the original four music-preference dimensions. In addition, the four independent music preference dimensions were found to have good generalizability, across samples, methods, and geographic regions (Rentfrow & Gosling, 2003).

Internal consistency reliability estimates for the STOMP dimensions was much lower for three of the four music preference dimensions in the current sample of

university students: .78 for Reflective and Complex, .48 for Intense and Rebellious, .50 for Upbeat and Conventional, .52 for Energetic and Rhythmic.

Music Function Questionnaire (MFQ; Mulligan & Winterowd, 2009). Music serves a variety of functions in people's lives. The function of music listening was assessed by the MFQ. Participants reviewed a list of possible reasons for listening to music on the MFQ and rated each item using a 7-point Likert scale (1 being "strongly disagree" and 7 being "strongly agree"). The items were created by the authors based on their theory that people listen to music for spiritual, physical, behavioral, social, emotional, and cognitive purposes. Here are examples of items from each domain: "I listen to music because it helps me connect to God or a higher power" (spiritual), "I listen to music because it helps me exercise/work out" (physical), "I listen to music because it motivates me to be productive" (behavioral), "I listen to music because it's part of my group identity" (social), "I listen to music because it helps me vent my frustration" (emotional) and "I listen to music because I can relate to the lyrics" (cognitive). One of the purposes of this study is to assess the psychometric properties of this instrument. It was hypothesized that the principle components analysis results would support the proposed theoretical structure of these music function items. Instead, the results indicated a one component solution which will be discussed in the results section. The internal consistency reliability of the MFQ was .94.

Ways of Coping Questionnaire (WCQ; Folkman & Lazarus, 1988). The WCQ assesses several different types of coping strategies used in response to stressful events. Respondents to the questionnaire are asked to consider one particular stressful event that they have experienced within a specified period of time. (For the purpose of this study,

participants were asked to consider the most stressful event they had experienced *that semester*.) They then rate each of 66 items on a 4-point Likert scale indicating their use of strategies to cope with this event, from 0 (not used) to 3 (used a great deal).

The WCQ includes 8 subscales (that emerged from a series of factor analyses) describing coping strategies: Confrontive Coping (i.e., “aggressive efforts to alter the situation”, Folkman & Lazarus, 1988, p. 11), Distancing (i.e., detaching from or minimizing the situation, Self-Controlling which refers to attempts to control one’s feelings and actions), Seeking Social Support (i.e., seeking help and support from others), Accepting Responsibility (i.e., efforts to realize one’s role in problem), Escape-Avoidance (i.e., efforts to escape or avoid the problem; engaging in “wishful thinking”; Folkman & Lazarus, 1988, p. 11), Planful Problem Solving (i.e., being analytical, problem-focused), and Positive Reappraisal (i.e., reframing the situation in a more positive manner). For the purposes of this study, the raw subscale scores will be used.

Test-retest reliability analyses were not conducted since the WCQ measures coping processes, which can be variable (Folkman & Lazarus, 1988).

The internal consistency reliability estimate for the WCQ subscale scores ranged from .61 to .79 (Folkman and Lazarus, 1988). In a more recent study, internal consistency reliability estimates for the WCQ subscale scores ranged from .67 to .81 (Pikler & Winterowd, 2003). In the present study, the internal consistency reliability estimate for the overall WCQ scale was .92. The internal consistency reliability estimates for the WCQ subscales for this sample were as follows: .62 for Confrontive Coping, .60 for Distancing, .59 for Self-Controlling, .66 for Seeking Social Support, .67

for Accepting Responsibility, .71 for Escape-Avoidance, .72 for Planful Problem-Solving, and .74 for Positive Reappraisal.

The WCQ has good face validity because “the strategies described are those that individuals have reported using to cope with the demands of stressful situations”(Folkman and Lazarus 1988, p. 16). The WCQ is also reported to have good construct validity, however, information regarding the principle components analysis of this measure was not available in the manual. Coping, as measured by WCQ, has been significantly associated with psychological adjustment, thus providing evidence of convergent validity (e.g., Vitaliano et al., 1985; Coyne et al., 1981, Felton et al., 1984). (Note: The WCQ is not included with the other measures in Appendix D because it is a copyrighted instrument.)

Depression, Anxiety, and Stress Scale-21 (DASS 21; Lovibond and Lovibond 1995). The DASS 21 is a 21-item measure of “depression, hyperarousal and tension” (Antony, Beiling, Cox, Enns, and Swinson, 1998, p. 181). This instrument was administered to participants as part of a larger study, but not used in the present study.

RESULTS

An exploratory principle components analysis was conducted on the STOMP. Given the similarities of the components found in relation to the original component structure (Rentfrow and Gosling, 2003), the larger sample size in the original studies, as well as the number of researchers who have used the STOMP, the original STOMP subscales were retained and used in the analyses of this study. It should be noted, however, that some of the internal consistency reliabilities of these subscales were not as high as expected. The internal consistency reliability estimates for the STOMP subscales were .78 for Reflective and Complex, .48 for Intense and Rebellious, .50 for Upbeat and Conventional, .52 for Energetic and Rhythmic. Therefore, the following analyses using the STOMP subscales need to be interpreted with some caution, except for the Reflective and Complex music preference subscale.

See Table 2 for the means, standard deviations, and score ranges for the main study variables, including the four STOMP music preferences subscales, the WCQ total score and subscales, and the MFQ total score.

Pearson correlational analyses were conducted to explore the bivariate relationships between and among the main study variables. See Table 3 for the correlation matrix. Three of the four music preference subscales were significantly and positively correlated with the overall coping score (WCQ total): Intense and Rebellious ($r = .18, p < .05$), Upbeat and Conventional ($r = .16, p < .05$), and Energetic and Rhythmic ($r = .29, p < .01$). Reflective and Complex was not significantly related to overall coping

($r = -.03$, $p > .05$). The only significant moderate correlation was Energetic and Rhythmic music preferences with the overall coping strategies score.

Music function was positively and moderately correlated with overall coping ($r = .46$, $p < .01$). Music function was also significantly and positively related to each of the eight WCQ subscales, including Confrontive Coping ($r = .28$, $p < .01$), Distancing ($r = .26$, $p < .01$), Self-Controlling ($r = .34$, $p < .01$), Seeking Social Support ($r = .19$, $p < .01$), Accepting Responsibility ($r = .33$, $p < .01$), Escape-Avoidance ($r = .35$, $p < .01$), Planful Problem Solving ($r = .31$, $p < .01$) and Positive Reappraisal ($r = .30$, $p < .01$). Music function was moderately correlated with all of the coping subscales except Seeking Social Support.

A multiple regression analysis was conducted to explore the linear relationship of music preferences with coping strategies in general. The Reflective and Complex, Intense and Rebellious, Upbeat and Conventional, and Energetic and Rhythmic subscales of the STOMP were entered in as the predictor variables and the total WCQ score was the criterion variable. Results indicated that the four music preferences subscales were significantly and linearly related to the overall use of coping strategies by college students, $F(4, 191) = 6.71$, $p < .01$, and accounted for 12.3% of the total variance in overall use of coping strategies.

Post-hoc analyses were conducted to explore the linear relationship of music preferences with each of the eight coping strategies subscales (i.e., Confrontive Coping, Distancing, Self-Control, Seeking Social Support, Accepting Responsibility, Escape–Avoidance, Planful Problem Solving, and Positive Reappraisal). Eight multiple regression analyses were conducted, one for each coping subscale. The four subscales of the

STOMP were entered into the equation (i.e., predictor variables) with each of the WCQ subscales as the criterion variables. A Bonferroni correction was calculated to reduce the chance of type 1 errors given the number of analyses conducted and the significance level was set at .006 (.05 divided by 8 = .006). Results indicated that music preferences were significantly and linearly related to three of the eight types of coping measured by the WCQ: Confrontive Coping, $F(4, 191) = 5.60, p = .000$, accounting for 10.5% of the total variance; Escape Avoidance, $F(4, 191) = 5.10, p = .001$, accounting for 9.7% of the variance; and Positive Reappraisal, $F(4, 191) = 4.55, p = .002$, accounting for 8.7% of the variance. Music preferences were not significantly and linearly related to Self-Controlling, Accepting Responsibility, Planful Problem Solving, Seeking Social Support, or Distancing coping subscale scores. See Table 5 for the multiple regression findings.

A principle components analysis was conducted to explore the component structure of the MFQ for this sample of college students. Based on the Kaiser rule of eigenvalues over 1 and examination of the scree plot (Stevens 2002), a one component solution emerged, “Music Function”, which had an eigenvalue of 11.44 and explained 38.13% of the variance in music function scores. All items, except for three items (i.e., “I listen to music because it helps me exercise/work out”, “I listen to music because it serves as background noise” and “I listen to music because I like to analyze the musical structure) loaded significantly (.40 or higher) on this factor. However, given the theoretical and practical significance of these items, they were retained in the overall score of the MFQ. The internal consistency reliability estimate of the MFQ total score was .94. See Table 6 for the item loadings for this music function component.

A multiple regression analysis was conducted to explore the linear relationship of coping strategies with music function. The Confrontive Coping, Distancing, Self-Control, Seeking Social Support, Accepting Responsibility, Escape–Avoidance, Planful Problem Solving, and Positive Reappraisal subscales of the WCQ were entered into the equation as the predictor variables and the total MFQ score was the criterion variable. Results indicated that the eight WCQ subscales were significantly and linearly related to the function of music in college students' lives, $F(8, 188) = 6.50$, $p < .01$, and accounted for 21.7% of the total variance in music function scores.

Participants were also asked to report the number of hours they spend listening to music per week as part of the demographics questionnaire. Responses ranged from zero to 150 hours. The mean number of hours reported was 18.42 and the standard deviation was 22.44. One participant's response of 250 was not included due to a week consisting of only 168 hours. Post hoc correlational analyses were conducted to explore the bivariate relationships between hours per week of music listening and: 1) music function and 2) overall coping. Frequency of music listening was significantly related music function ($r = .27$, $p < .001$), but was not significantly related to overall coping ($r = .03$, $p > .05$).

In summary, there were small but statistically significant bivariate and linear relationships between music preferences and coping. A one-factor solution was found for music function. Music function was significantly and moderately related to overall coping. All eight coping subscales were significantly and linearly related to music function, as well. Frequency of music listening was significantly related music function, but was not significantly related to overall coping.

DISCUSSION

The purposes of this study were to explore the relationship between music preferences and coping, to determine the component structure of the Music Function Questionnaire, and to explore the relationship between music function and coping. This was an exploratory study on the relationship of music preferences and music function with coping in college students given the paucity of research addressing the function of music in general as well as music preferences and the psychological construct of coping. Given that music has had an important presence throughout history and across cultures, and the playing of recorded music is nearly omnipresent in modern Western society (in cars, gyms, shopping areas, offices, homes, restaurants, etc.), it is important to look at the function that music serves for people. Ask nearly any mental health clinician who works in the university setting, and they are likely to tell you that music plays a particularly important role in the lives of college students. What roles does it play, though, and how might it help or hurt these students' attempts to cope with life stressors? How might those who work in college student mental health use this information in the treatment of their clients? These are the larger questions the authors wish to address.

Overall, results of the study indicated small but statistically significant bivariate and linear relationships between music preferences and coping in this college student sample. While the findings of Rentrow & Gosling (2003), Schwartz & Fouts (2003), Zweigenhaft (2008) and others have related music preferences to other psychological constructs such as personality characteristics, this study adds to the body of research by

providing information specifically related to music preferences and coping.

Of interest, it was noted that the internal reliability estimates for three of the four STOMP were not as high as anticipated based on the findings of the instrument's creators when norming the instrument with two large, separate, non-overlapping samples in their original study (Rentfrow & Grosling, 2003). The authors of the present study have struggled somewhat to determine why this might be the case. Like the original STOMP study, this study used a sample of undergraduate students at a large public university. The normative samples in the Rentfrow & Grosling (2003) studies were significantly larger than the sample in the present study. However, little information was provided regarding the demographic characteristics of the participants in the original studies, so there is no direct way to assess how comparable these samples are. The samples of college students in the Rentfrow & Grosling (2003) studies came from The University of Texas at Austin, which has a larger and presumably more diverse student body than that the university that was sampled in this study. It is possible that the current sample is less heterogeneous in terms of demographic characteristics and possibly music interests compared to the Rentfrow & Grosling (2003).

Another possible explanation for the lower than expected internal consistency reliability estimates on some of the STOMP music preference subscales is the six-year difference between the original STOMP study and the present one, which is a significant amount of time in the ever-changing world of popular music. Commonly accepted definitions of music genres tend to evolve over time. For example, the music known today as heavy metal would likely be unrecognizable to fans of the genre in the 1970s. On a shorter time scale, it is common for music known as "alternative" or "indie"

(independent) to gain widespread mainstream acceptance within a few years or even months. The past six years have also seen major changes in how people listen to music, with an explosion in the use of iPods, portable .mp3 players, and listener-programmed internet “radio” services such as Pandora, and sharp decreases in sales of compact discs and the cultural significance of traditional music radio. This increasing access to a wider variety of music may be leading to students’ decreasing identification with specific music genres, causing patterns of preferences on the STOMP to change. In other words, the way music genres relate to one another on music preferences dimensions may be less reliable given changes in how recorded music is made, distributed, and listened to. So, while music preferences were significantly related to general coping strategies in college students, those relationships were small. Therefore, the types of music to which college students listen may be one piece to consider when conducting therapy with students, but music preference does not appear to relate to overall coping to as great of an extent as music function does.

The Music Function Questionnaire was developed to measure the different functions of music in college students’ lives. This questionnaire was found to measure one overall construct called Music Function. How music functions in people’s lives seems to be related to overall coping and well as specific strategies of coping when considered together.

When developing the Music Function Questionnaire (Mulligan & Winterowd, 2009), the authors hoped to find unique functions of music listening and expected the music function items would cluster or load on particular theoretical dimensions including spiritual, emotional, behavioral, social, physical, and cognitive. The unexpected result of

all items significantly loading a single-factor solution, along its high internal consistency reliability, demonstrates that college students tend to listen to music to help them function in a variety of ways and that this overall experience is important. In other words, they have a certain level of overall “music function” which is likely to include a wide variety of specific music uses or functions.

Of interest, a moderate correlation was found between music function and overall coping. This correlation was much stronger than that found between music preferences and coping. This seems to imply that, regardless of college student’s preferences in music, if they use music in a wider variety of ways, they are likely to use greater amounts of coping when faced with stressful situations.

It could be theorized that what is actually being measured by the Music Function Questionnaire is essentially “music coping”, or an indicator of people’s use of music to cope with life events. It is also worth noting that there was not a significant relationship between amount of time spent listening to music and overall coping. In other words, it is not simply listening to music that contributes to greater coping, but rather using the music for a variety of functions that contributes to greater coping. The MFQ may therefore be useful in both research and clinical applications to help us understand people’s use of music and how music helps them in their daily lives.

The results of this study have important implications for counselors and psychologists who work with college students. While clinicians in university settings may know that their college student clients tend to listen to a great deal of music, they may not know what functions this music listening serves for them. Understanding the role or function of music in college students’ lives can lend insight into student’s coping and

overall stress management. For example, a university counselor or psychologist who consistently notices their client listening to an iPod in the waiting room before sessions may wish to inquire about the student's listening. First of all, is he/she listening to music? (It could be an audiobook or talk-only podcast, for example.) If so, what kind of music? More importantly, what does listening to music do for this student? Does it help him/her in some way? If so, how does it help?

The MFQ could be administered at intake or during subsequent sessions to assess students' use of music and the importance of music in their lives, including what music listening does for them. Used in conjunction with follow-up questioning, the MFQ may aid in treatment planning with clients. For example, the therapist may learn that a student experiencing anhedonia as a symptom of depression is not using music as much as he/she has in the past. This decrease in the client's use of music to cope may be further worsening their mood and/or ability to function. Another client may use music infrequently or not at all. Teaching such a person ways to use music may then give him/her a new coping tool to use in their daily lives. The relationship between music function and coping strategies for college students will hopefully bring greater awareness and attention to music and its function at this important developmental time in college students' lives. It is hoped the results of this study will encourage counselors and psychologists to pay more attention to music function as a form of coping for college students and explore music function as a part of the counseling/psychotherapy process to help enhance college students' use of a variety of healthy coping strategies. This is generally not something addressed in the training of counselors and psychologists.

There are a few potential limitations of the findings of this study. As with any study consisting only of self-report measures, the results indicate the participants' perception of themselves and their experience, which may or may not be accurate. Also, the sample was taken from a general college student population rather than a clinical population, which may impact the applicability of the results to therapy clients. Even within the university population, this sample may have been more racially and culturally homogenous (95% White and/or Native American, 98.5% heterosexual, 50% from rural areas) than would be found at many universities. While the researchers did not offer any incentive to students to participate in the study, some of the instructors of courses from which the students were recruited chose to offer extra credit to their students who participated. This factor, which was beyond the researchers' control, may have influenced the sample. The Ways of Coping Questionnaire (Folkman & Lazarus, 1988), though used in a great deal of previous coping research, is designed by its authors to measure coping as a state, rather than a trait. This means that the instrument measures how participants cope with a specific stressful event, which may or may not generalize to their coping style across a variety of situations. As mentioned previously, there may also be limitations in using the concept of music genres to classify college students' music-listening preferences given that the STOMP structure did not really hold for this sample (in terms of internal consistency reliability).

Given the findings of this study, future researchers examining music and psychological constructs such as coping may wish to focus less on people's music preferences and more on the function of music in people's lives. Further research could be done to establish reliability and validity of the MFQ for college students as well as for

other people. Given the particular limits of the university population sampled for use in this study, the MFQ may benefit from being evaluated with samples representing more diversity in terms of age, race, and socioeconomic status. Music preference researchers may need to find more reliable ways to classify music preferences than using the STOMP subscales. It is hoped that the findings of this study will benefit future research in this area as well as enhance the provision of mental health services to college and university students.

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Table 1

Demographics of the Sample (n = 200)

Age	m =19.97	sd = 1.40	range = 18-24
Gender	n		%
Female	135		67.5
Male	65		32.5
Race	n		%
African American	3		1.5
American Indian/ Native American	15		7.5
Asian/Asian American	4		2.0
Caucasian/White	158		79.0
Hispanic/Latino/Latina	0		0.0
Multiracial, White and American Indian	17		8.5
Multiracial, other than White and American Indian	3		1.5

Table 1 (continued)

Demographics of the Sample (n = 200)

Relationship Status	n	%
Single	189	94.5
Partnered	7	3.5
Married	4	2.0
Separated	0	0.0
Divorced	0	0.0
Widowed	0	0.0
Sexual Orientation	n	%
Heterosexual	197	98.5
Lesbian	2	1.0
Gay	0	0.0
Bisexual	1	0.5
Year in College	n	%
Freshman	90	45.0
Sophomore	36	18.0
Junior	56	28.0
Senior	18	9.0

Table 1 (continued)

Demographics of the Sample (n = 200)

Living Arrangement	n	%
On-Campus Residence Hall	76	38.0
On-Campus Apartment	7	3.5
Sorority or Fraternity House	41	20.5
Off-Campus With Parent(s)/Guardian(s)	13	6.5
Off-Campus (Not with Parents)	63	31.5
Community Type	n	%
Urban (city of more than 50,000)	45	22.0
Suburban (town or area next to city of more than 50,000)	54	27.0
Rural (town of less than 50,000 not next to urban area)	100	50.0
No Response	1	0.5

Table 1 (continued)

Demographics of the Sample (n = 200)

Family Income	n	%	
Less than \$10,000	3	1.5	
\$10,000 - \$20,000	5	2.5	
\$20,001 - \$30,000	12	6.0	
\$30,001 - \$40,000	7	3.5	
\$40,001 - \$50,000	15	3.5	
\$50,001 - \$60,000	21	10.5	
\$60,001 - \$70,000	18	9.0	
\$70,001 - \$80,000	19	9.5	
\$80,001 - \$90,000	14	7.0	
\$90,001 - \$100,000	16	8.0	
\$100,001 - \$110,000	22	11.0	
\$110,001 and over	38	19.0	
No response	9	4.5	
Hours per week spent Listening to music	m =18.42	sd = 22.44	range = 0-150

Table 2

Frequencies of Main Study Variables

Variable	Mean	SD	Range
STOMP Reflective & Complex	14.34	5.44	4-28
STOMP Intense & Rebellious	13.04	3.96	3-29
STOMP Upbeat & Conventional	20.67	4.43	5-28
STOMP Energetic & Rhythmic	12.41	4.01	3-21
MFQ Total	143.57	30.78	61-209
WCQ Total	105.11	27.02	33-189
WCQ Confrontive Coping	8.26	3.62	0-18
WCQ Distancing	8.64	3.62	0-18
WCQ Self-Controlling	12.65	3.74	0-21
WCQ Seeking Social Support	9.86	3.65	0-18
WCQ Accepting Responsibility	5.99	3.07	0-12
WCQ Escape-Avoidance	10.84	4.90	0-24
WCQ Planful Problem Solving	10.22	3.83	0-18
WCQ Positive Reappraisal	11.60	4.50	0-21

Table 3

Correlation Matrix of Music Preference (STOMP) Subscales, Music Function (MFQ) Total, and Coping (WCQ) Total, *p<.05 ** p<.01

	R&C	I&R	U&C	E&R	MFQ	WCQ
R&C	1.00					
I&R	.31**	1.00				
U&C	.05	-.01	1.00			
E&R	.21**	.27**	.20**	1.00		
MFQ	.19**	.25**	.31**	.33**	1.00	
WCQ	-.03	.18*	.16*	.29**	.46**	1.00

Key

R&C = STOMP Reflective and Complex

I&R = STOMP Intense and Rebellious

U&C = STOMP Upbeat and Conventional

E&R = STOMP Energetic and Rhythmic

MFQ = MFQ Total Score

WCQ = WCQ Total Score

Table 4

Correlation Matrix of Music Function (MFQ) Total and Coping (WCQ) Subscales.

*p<.05 ** p<.01

	MFQ
CON	.28**
DIS	.26**
SEL	.34**
SOC	.19**
RES	.33**
ESC	.35**
PPS	.31**
POS	.30**

Key

MFQ = MFQ Total Score

CON = WCQ Confrontive Coping

DIS = WCQ Distancing

SEL = WCQ Self-Controlling

SOC = WCQ Seeking Social Support

RES = WCQ Accepting Responsibility

ESC = WCQ Escape Avoidance

PPS = WCQ Planful Problem Solving

POS = WCQ Positive Reappraisal

Table 5

Multiple Regression Findings for the Relationship of Music Preferences (STOMP Subscales as Predictor Variable) with Coping (WCQ Total and Subscales)

Dependent Variable	R	Rsqu	F
WCQ Total	.35	.123	6.71**
Confrontive Coping	.32	.105	5.59**
Self-Control	.26	.068	3.47**
Accepting Responsibility	.25	.064	3.27*
Escape Avoidance	.31	.097	5.10**
Planful Problem Solving	.22	.047	2.37
Seeking Social Support	.16	.025	1.22
Distancing	.21	.043	2.15
Positive Reappraisal	.30	.087	4.55**

* p<.05

** p<.01

Table 6

Component Matrix of the Music Function Questionnaire

Item ("I listen to music because...") Component	Music Function
It is energizing.	.52
It makes me aware of my purpose or meaning in life.	.72
I like to dance.	.46
It distracts me from my emotional pain.	.72
It connects me with nature.	.62
It helps me appreciate the goodness in life.	.73
It helps me understand my struggles.	.75
It helps me exercise/work out.	.30
It helps me connect to God or a higher power.	.46
It distracts me from my physical pain.	.56
It relaxes me.	.55
It motivates me to be productive.	.67
It helps me to appreciate the world in which I live.	.75
It helps me finish work and/or school tasks.	.46
It serves as background noise.	.37
It helps me feel connected with those around me.	.67
It helps me meditate and/or pray.	.42
It's cool.	.56
It helps me feel less alone.	.67

Table 6 (Continued)

Component Matrix of the Music Function Questionnaire

It helps me get in the mood to be social.	.64
It makes me feel good.	.67
It helps me change the mood I'm in.	.68
It gives me the confidence to relate to others.	.76
It helps me vent my frustration.	.68
It helps me to focus when I study or work.	.46
I can relate to the lyrics.	.67
It helps me express my emotions.	.79
It helps me to think through problems.	.77
It's part of my group identity.	.65
I like to analyze the musical structure (key, meter, harmony, parts, etc.)	.39

Table 7

Multiple Regression of Coping Subscales (Predictors) and Music Function (Criterion)

Dependent Variable	R	Rsq	F
MFQ Total	.47	.217	6.50**

**p < .01

APPENDICES

Appendix A

REVIEW OF THE LITERATURE

Review of the Literature

The psychology of music has been a growing field of interest since the early 1990's. Much of the early research focused on musicology and education perspectives, particularly the impact of music on cognition and learning. Recently there has been more focus on music preferences from the psychological perspective. While there is some research to support the relationship between music preferences and personality (which will be discussed next), there is little research regarding the function of music in people's lives and how music helps people cope. In the present study, music preferences and music function will be explored in relation to general coping strategies among college students.

In the sections to follow, the literature on music preferences will be reviewed, followed by a review of the functions of music from historical and cultural perspectives. Last, the theory and research related to coping and coping strategies will be discussed.

Music Preferences

People have preferences for the types of music they enjoy. There is some evidence that music preferences cluster into genres or groups (Burge, Goldblat, & Lester, 2002; Rentfrow & Gosling, 2003).

Burge and associates (2002) argued that previous researchers have made a fundamental error in treating preferences for one style of music as a single variable, rather than acknowledging that preferences for music styles overlap. A questionnaire regarding music preferences was administered to 77 high school students asking them about their preferences for heavy metal, rap, country, pop rock, classic rock, alternative,

and punk rock on a 5-point scale from “like strongly” to “dislike strongly”. Factor analysis showed that those who like heavy metal also tend to like rock, alternative, and punk rock, while those who liked country also tended to like punk rock.

Rentfrow and Gosling (2003) conducted a series of six studies to explore individual differences in music preferences. They identified four music preference groups based on their factor analysis including “Intense and Rebellious” which included rock, alternative, and heavy metal music, “Upbeat and Conventional” which included country, soundtrack, religious, and pop music, “Energetic and Rhythmic” which included rap/hip-hop, soul/funk and electronica/dance music, and “Reflective and Complex” which included blues, jazz, classical, and folk music.

In their first study, they explored people’s beliefs about the relevance of music to their everyday lives. Seventy-four college undergraduates completed a packet of questionnaires. The first questionnaire included a list of 8 different lifestyle and leisure activities (music, movies, books and magazines, TV programs, food preferences, bedrooms, hobbies and activities, clothes). Participants were asked to rate each of these eight activities on a scale of 0 to 100 in terms of their importance to them. Participants were then asked to rate their beliefs regarding the degree to which various lifestyle and leisure activities reflected their own views. Finally, participants were asked to indicate the frequency with which they engaged in various activities while in nine different situations (i.e. alone at home, going to sleep, while hanging out with friends, while driving, getting up in the morning, while studying, while working, while exercising, and while getting ready to “go out”). Results indicated that music and hobbies were rated the most important lifestyle and leisure activities by the participants, with no significant

difference between the two. However, there was a significant difference between music and the third most important item, which was food preferences. Participants also believed overall that their music preferences revealed as much or more about their self-views as any of the other areas. Participants were found to engage in music listening more often than any of the other activities across all nine situations, with music being listened to most often while driving, alone at home, exercising, and hanging out with friends.

Their second study (Rentfrow & Gosling 2003) was an exploratory factor analysis of music preferences using a sample of 1,704 college undergraduates, with 118 of these participants returning 3 weeks later to be tested a second time to examine the music dimensions across time. All participants completed the Short Test of Music Preferences (STOMP), which was developed by the authors for this study. A four-factor solution emerged, accounting for 59% of the total variance in music preferences. These factors were named “Reflective and Complex” (blues, jazz, classical, and folk), “Intense and Rebellious” (rock, alternative, and heavy metal), “Upbeat and Conventional” (country, soundtrack, religious, and pop), and “Energetic and Rhythmic” (Rap/Hip-Hop, Soul/Funk, and Electronica/Dance). Results of the three-week follow-up test showed that preferences for each dimension remained stable across time, with retest reliability coefficients ranging from .77 to .89 for each of the four factors.

Next, Rentfrow & Gosling (2003) replicated the previous study with a new sample of 1,383 college undergrads at the same university (with no overlap in participants) to test cross-sample generalizability of the factor structure of music

preferences. Confirmatory factor analysis was found to support the original four music-preference dimensions.

To test generalizability across samples, methods, and geographic regions, the authors' fourth study surveyed the music collections of people from around the United States on audiogalaxy.com, a filesharing website that allows you to view the mp3 music collections on others' computer hard drives (Rentfrow & Gosling (2003). Ten users were randomly selected from each of the 50 U.S. states, and 20 songs randomly selected from each of the 500 users. The judges then coded each song into one of the 14 music genres represented on the STOMP. Confirmatory factor analysis on this data supported the four independent music preference dimensions.

Given that the majority of studies on music preferences included the STOMP as the measure of music preferences, the STOMP will be used to assess music preferences of the college students in the present study.

Music Preferences and Personality Characteristics. Researchers explored the relationship of music preferences and personality characteristics (e.g., Delsing et al., 2008; Rentfrow & Gosling, 2003; Schwartz & Fouts, 2003; Zweigenhaft, 2008).

In their fifth study, Rentfrow & Gosling (2003) examined attributes that hold each of the four music preference dimensions together. Ten "exemplar" songs for 13 of the 14 genres on the STOMP were selected, with the exception being the "Soundtrack" genre. This was done by consulting online music retailers. A pool of 300 person descriptors was taken from the Adjective Check List (ACL, Gough & Heilburn, 1983) and narrowed to 20 descriptors seen as most relevant to music through a lengthy process using multiple sets of judges. The authors then added five more attributes, for a total of twenty-five

attributes. Judges then rated separately the musical and lyrical aspects of each of the 140 songs according to each of the 25 attributes on a scale of 1-7. The Reflective and Complex dimension was found to have slow tempos, little singing, and to primarily use acoustic instruments. The Intense and Rebellious dimension had fast tempos, mostly electric instruments, and a moderate amount of singing. The Upbeat and Conventional dimension included music with moderate tempo, mostly electric instruments, and a moderate amount of singing. The Energetic and Rhythmic dimension had moderate tempos, electric instruments, and moderate singing. In terms of lyrical aspects of these dimensions, judges perceived the Reflective and Complex dimension to have complex lyrics with both positive and negative emotions and low energy level. They saw Intense and Rebellious lyrics as having moderate complexity, low positive affect, high negative affect, and high energy. Lyrics in the Upbeat and Conventional dimension were judged to be simple, direct, low in negative affect, high in positive affect, and high in energy level. Energetic and Rhythmic dimension lyrics were perceived as moderately complex and unemotional with moderate energy.

Rentfrow and Gosling (2003), in their sixth and final study in the series, addressed the relationship of personality characteristics and music preferences. In addition to the measures mentioned earlier, the participants from studies 2 and 3 were administered the following: Big Five Inventory (BFI), Personality Research Form-Dominance (PRF-D), Social Dominance Orientation questionnaire (SDO), Brief Loquaciousness and Interpersonal Responsiveness Test (BLIRT), Beck Depression Inventory (BDI), Rosenberg Self-Esteem Scale (RSES), Self-Attributes Questionnaire (SAQ), supplemental political orientation questions, and the Wonderlic IQ test. The

authors then computed correlations between the music-preference dimensions and scores on each of these measures. Significant relationships emerged between music preferences and following variables: personality, self-views, and cognitive ability. Specifically, preference for the Reflective and Complex dimension correlated positively with openness, self-perceived intelligence, verbal ability, and political liberalism, and negatively correlated to athleticism and social dominance. The Intense and Rebellious dimension was positively correlated to openness, athleticism, self-perceived intelligence, with no significant negative correlations found. The Upbeat and Conventional dimension correlated positively with extraversion, agreeableness, conscientiousness, conservatism, self-perceive physical attractiveness, and athleticism, and negatively with openness, social dominance, liberalism, and verbal ability. The Energetic and Rhythmic dimension related positively to extraversion and athleticism and negatively to social dominance and conservatism.

Zweigenhaft (2008) explored the relationship of personality dimensions and music preferences among 83 undergraduates in a southeastern university. This researcher used the NEO-PI as the measure of personality and the STOMP with seven additional music genres as a measure of music preferences. Results indicated that the Openness personality trait was significantly related to a number of music preferences in this college student sample including the Reflective and Complex, Upbeat and Conventional, Energetic and Rhythmic dimensions of music preferences (as measured by the STOMP). More specifically, college students who were more open, as a personality dimension, were more likely to endorse Reflective and Complex as well as Energetic and Rhythmic music but were less likely to endorse Upbeat and Conventional music. The

Conscientiousness personality trait was positively correlated with Upbeat and Conventional music preference dimension. College students who were more Conscientious tended to prefer Upbeat and Conventional music. The Intense and Rebellious music preference dimension did not correlate with any of the major personality dimensions.

Amongst the seven additional genres added by Zweigenhaft, students who expressed interest in international music were less Neurotic. Students who endorsed funk music were less Conscientious. Students who preferred bluegrass, international music, opera, punk, and funk music reported more Openness. Those who prefer oldies were less Deliberate. While there were some gender, age, and race differences in music preferences identified in this study, given the small sample and the few number of students in some of the categories, findings should be interpreted with caution.

Another group of researchers explored personality characteristics and music listening in adolescents (Schwartz & Fouts, 2003). The authors stated that studies on music listening habits of adolescents and young adults with psychological difficulties have focused on what the authors refer to as “heavier forms of music”. It was argued that adolescents who prefer “lighter kinds of music” and those who have more eclectic tastes have been largely ignored by previous research. Subjects in this study were 164 junior and senior high school students from two public schools in Calgary, Alberta, Canada. They measured music preferences using a scale developed by Finnas (1987), which assesses the following thirteen qualities of music: romantic and dreamy, mild and quiet, sad and gloomy, peaceful and relaxing, soft and tender, serious and thoughtful, good-natured and kind, upsetting and protesting, tough and hard, loud played at a great volume,

wild and violent, played with many guitars, and played at a fast tempo. Participants rated their enjoyment of music described by each quality on a five-point Likert scale where 1= “not at all” and 5= “a great deal”. Music involvement was measured by asking participants to estimate the amount of time, in minutes, they spent listening to music on each weekday and each weekend day. The researchers then computed a weekly total using these amounts. Personality characteristics and developmental issues were measured using the Millon Adolescent Personality Inventory (MAPI), which uses 20 scales. Eight of these 20 scales measure the following personality styles: Introversive, Inhibited, Cooperative, Sociable, Confident, Forceful, Respectful, and Sensitive. Eight different scales measure expressed concerns including: Self-Concept, Personal Esteem, Body Comfort, Sexual Acceptance, Peer Security, Social Tolerance, Family Rapport, and Academic Confidence. The remaining four scales assessed behavior: Impulse Control, Societal Conformity, Scholastic Achievement, and Attendance Consistency. A principal components factor analysis of responses to the measure of music preference revealed two factors with eigenvalues greater than 1. These factors (“light music” and “heavy music”) contained the same items as were found by Finnäs (1987) when the exam was originated. Participants whose mean differences between these two categories was less than 0.5 were assigned to the “eclectic” category, with those whose mean differences were greater than 0.5 assigned to the appropriate preference category of “light” or “heavy”.

There were no significant differences among the three groups in amount of time per week subjects spent listening to music ($M = 22.4$ hours per week). Gender and grade differences were also examined, with no significant difference found between males and females nor junior and senior high school students with regards to amount of time spent

listening to music. Females were found to prefer light music more than males, with no significant difference between males and females in preferences for heavy music. The senior high school subjects showed greater preference for light music than their junior high counterparts, with no significant differences between these two groups in their preference for heavy music. With the subjects' results from the MAPI, between-subjects multivariate analysis of covariance was performed using each of the 20 scales as a dependent variable, and music preference (heavy, light, eclectic) as the independent variable and gender and grade level as covariates. Subjects preferring heavy music scored significantly higher on the Forceful, Social Tolerance, Sensitivity, Impulse Control, Family Rapport, Societal Conformity, and Academic Confidence scales than subjects preferring light music, and scored 60 or higher on these scales, indicating that they may be experiencing at least moderate developmental difficulties. Subjects preferring light music had significantly higher scores on the Respectful, Sexual Acceptance, and Peer Security scales than those preferring heavy music. These subjects also scored above 60 on these scales, also indicating that they may be experiencing at least moderate developmental difficulties. No significant group comparisons were found in which the eclectic group scored above a 60 on a MAPI scales, indicating that they experienced fewer difficulties with personality and/or development than their peers with strong preferences for either heavy or light music. The authors conclude that adolescents with more rigid music preferences may have more difficulties with personality adjustment and/or developmental issues.

Delsing et al. (2008) explored the dimensions of music preferences, stability of preferences over time, and the relationship between music preferences and personality

characteristics of adolescents in the Netherlands. Their sample consisted of 2,334 adolescents between the ages of 12 and 19. Participants in this study were administered the Musical Preference Questionnaire (MPQ, Sikkema 1999), which consists of 11 genres of music. The MPQ uses categories similar to those in the STOMP. It does not include folk, country, or blues, as these genres were found not to be familiar to Dutch adolescents, based on a pilot study and interviews conducted with music retailers. It also does not contain the soundtrack genre due to its heterogeneous nature. The participants also took a Dutch adaptation of the Big Five factors. Follow-up measurements using the same instruments were then taken at one, two, and three-year intervals. The researchers found that their 11 genres loaded into four music preference dimensions, which they named Rock (including the genres Heavy metal/hardrock, Punk/hardcore/grunge, Gothic, and Rock), Elite (including the genres Jazz, Classical, and Gospel), Urban (including the genres of Hip-hop/rap and Soul/R&B), and Pop/dance (including the genres Trance/techno and Top 40/charts). Preferences for all four musical dimensions remained stable over one, two, and three-year intervals. In terms of relationships between musical dimensions and personality characteristics, preference for the Rock dimension was found to correlate positively with Openness and negatively with Conscientiousness. At the two and three-year follow-ups, a significant negative correlation was found between the Rock dimension and Extraversion. Preference for the Elite dimension correlated positively with Openness and Agreeableness and negatively with Emotional stability. The Elite dimension was also found to correlate positively with Conscientiousness at the one and three-year follow-ups. The Urban dimension and Pop/Dance dimension were both correlated positively with Agreeableness and Extraversion. The Urban dimension

correlated positively with Conscientiousness at the two and three-year follow-ups, while the Pop/Dance dimension correlated with Conscientiousness at only the two-year follow-up. Though these results were largely similar to those of Rentfrow and Gosling (2003), one notable difference is that the significant negative correlation between Elite music preferences and Emotional Stability found in the Delsing et al. (2008) study of adolescents in The Netherlands was not found in the Rentfrow and Gosling (2003) study of college students in the United States.

Music Preferences and Interpersonal Perceptions. Rentfrow and Gosling (2008) conducted two studies to explore music preferences as they relate to interpersonal perceptions. In their first study, they analyzed conversations among 60 undergraduate students at a large southern university in the United States. Each participant was asked to get to know another participant, whom they did not know previously, for six weeks using an online bulletin board. Participants were given no instruction on what to discuss. The researchers found that music was the most talked about topic among the students, particularly during their first week of getting to know each other.

In their second study, Rentfrow and Gosling (2008) examined the interpersonal information conveyed by music preferences. College students at the same university mentioned above ($n = 74$) completed the Big Five Inventory, Rokeach's Values Survey, a single-item self-esteem measure, and the Positive and Negative Affect Schedule. The participants were also asked to create a list of their top 10 favorite songs by title, band/artist name, and genre. Each student's favorite songs were then burned onto a CD and presented to 8 observers who had no contact with or knowledge of the participants, apart from the CD of their favorite songs. Observers then completed the same instruments

as the participants, based on the music CDs, to try to determine their personality styles, values, and self-esteem based on their music preferences. Observers reports and self-reports of the personality traits of the participants based on their music interests were correlated for Extraversion, Agreeableness, Emotional Stability, and Openness to Experience, but not Conscientiousness. Observer reports and self reports of personal values correlated positively on 8 of the 18 values, including “a world at peace”, “a world of beauty”, “family security”, “salvation”, “social recognition”, “true friendship”, “forgiveness”, and “imagination”. Observers’ ratings and self-reports by participants for self-esteem were not correlated. On the affect measure, the correlation between observers’ ratings and participants’ self-report was significant for positive affect, but not negative affect. The researchers concluded that music preferences play an important role in interpersonal perception.

Music preferences and emotional well-being. There has only been one study conducted to date to assess the relationship of music preferences and emotional well-being. Burge et al. (2002) explored the relationship between music preferences and suicidality. Results indicated that men who liked country and pop rock music reported significantly higher levels of suicidal ideation than those men who liked heavy metal, rap, and other genres of music. There was no significant relationship between music preferences and suicidal ideation for women in this study. The author concludes that studies of the association between music preferences and suicidal ideation must take into account that preference for one type of music is likely to be associated with preference for another type of music.

No researchers to date have explored the relationship of music preferences and coping, which is the one of the purposes of the present study. Another purpose of this study is to explore the relationship of music function and coping. It is important to understand the role of music preferences and the functions of music for college students and how these may affect their general coping abilities given the relevance of music in many college students' lives. In the next section, music function research will be explored.

Music Functions

In recent years, psychologists and other mental health professionals have been tapping into something that musicians and music fans have known for centuries: music has strong ties with emotion and can be a very effective therapeutic tool. Music elicits strong emotion more consistently and frequently than other forms of art (Frey 1985, Williams & Morris, 1996). Dutta and Kanungo (1975), Rubin and Kozin (1984), and Gabrielsson (1991), among others, have shown that music, like smells and tastes, become associated with particularly strong emotions in life events or contexts, and can provide a trigger to the recall of these events and their accompanying emotions.

Music has been used to enhance people's academic performance as well as enhance their progress in therapy and rehabilitation. Music can also serve other important roles in people's lives, including cognitive, spiritual, physical, behavioral, and social functions.

This knowledge has led to the rapid growth of the field of music therapy in mental health settings. A great deal of published research in recent years by music therapists and others has lent empirical support to the effectiveness of music therapy in treating

numerous health problems. For example, Delucia-Waack (2001) outlines the effectiveness of music as a primary intervention tool in helping children of divorce express emotions more freely. Robb (2000) found music interventions to be significantly more likely than other activities to elicit engaging behaviors in hospitalized children. Colwell (1997) examines the use of music in chronic pain management. Rodgers (1995) discusses the role of music as an effective tool in reducing the harmful psychological and physiological effects of anxiety in surgery patients. Bright (1995) outlines the effective use of music therapy in the resolution of blocked grief and in other situations in grief counseling.

Meanwhile, there has been a great deal of attention given by psychologists, educators, and others to the effects of exposure to music on academic achievement of children. The literature provides mixed results when it comes to the legitimacy of the much-publicized “Mozart effect” hypothesis, which states that exposure to classical/symphonic music increases cognitive functioning or learning acquisition in children, adolescents, and college students. Some researchers have found that music exposure enhances cognitive performance and/or academic achievement (Oliver, 1997; Schrieber, 1988), while other research has not found such a relationship (Bridgett & Cuevas, 2000; Johnson, 2000).

In two research studies, music was found to enhance academic performance. Oliver (1997) conducted a study exploring the effect of music exposure on mood and reading comprehension in at-risk college freshmen. Students in a summer bridge program for at-risk students at a major Midwestern university ($n = 70$), were randomly assigned to six groups. Three instructors were each randomly assigned to teach two

groups. The students were provided with three days of in-class instruction and one day of self-study in a reading and study skills lab. The groups were assigned to one of three categories; slow baroque music, new age music, or regular lab background noise to be played during their instruction and study. Their reading comprehension retention was measured by the Nelson-Denny Reading Test. There was a statistically significant difference in reading comprehension scores in all three groups. There was a statistically significant difference between relaxed and non-relaxed mood state for the new age music group and the lab noise group, but not for the baroque music group.

Schrieber (1988) studied the effect of popular rock music on mid-term and final exam scores of students in an undergraduate psychology course. A total of 64 students in two groups were involved in this study. Only students with an average or higher score on the Otis Mental Ability Tests (obtained from college records) were included in the study. The researcher had one group of 30 students listened to popular rock music such as Billy Joel during the first 20 minutes of each class period. The other group of 34 students was not exposed to the background music. Participants in both groups took midterm and final exams in the course. The group exposed to the music had significantly higher exam scores than those who weren't.

Two groups of researchers found that music did not enhance academic performance. Bridgett & Cuevas (2000) found no significant difference in the immediate performance on a 10-minute mathematical test between college students who listened to Mozart or Bach, and those who didn't. Johnson (2000) found that classical background music actually had an adverse effect on the classroom learning and academic performance in 8th grade classrooms.

Music may help students focus on mental tasks such as studying, depending on their learning styles. More research is needed in this area.

Music listening has been associated with emotional states including relaxation. Oliver (1997) found that new age music and standard lab noise has a significant impact on whether participants felt relaxed or not. However, baroque music did not have a significant impact on relaxation.

Boal-Palheiros and Hargreaves (2001) found that music listening has a significant impact on mood, motivation, relationships, and activity level depending on the context in which music is heard. They explored the differences between function of music listening at home and at school, as well as the effects of age and nationality on these differences. Students (n = 120) were administered a structured interview consisting of ten open-ended questions covering the role of music listening as a whole and specifically related to home and school. Half of the participants were from the United Kingdom and half were from Portugal. Within each nationality group, 30 were 9-10 years old and 30 were 13-14. Results indicated that listening was an important leisure activity, particularly for the children aged 13-14. Home music listening was correlated with enjoyment, emotional mood, and social relationships, while school music was linked with motivation for learning and being active, and particular lesson content. The authors report finding little clear-cut difference in nationality. The results of this study may have been limited by the open-ended question format of the interview. The nationality variable is limited by the fact that students from only two countries, both in Western Europe, were examined.

Thompson and Larson (1995) also point to the importance of the social context when listening to music to best understand its impact. They examined the psychological

impact of rock music in adolescents as a joint function of music type (subtypes of rock music) and social context in which listening occurs. Fifth through ninth graders (ages 9 to 15; $n = 483$) were selected randomly from a “working-class, blue-collar community” on the edge of Chicago and an “outlying middle-class bedroom suburb”. These participants carried electronic pagers for a period of one week and were paged randomly once during every two-hour period of time from 7:30 AM to 9:30 PM. When signaled, participants filled out a self-report form inquiring about their activity, companionship, location, psychological state, and music listening (if any) at the time the page was received. If they were listening to music at the time, the participants were asked to identify the song to which they were listening. Three coders then classified the song into one of four categories: Top 40, Hard Rock/ Heavy Metal, Soft Rock, or Singer/Songwriter. Results indicate that social context has its greatest impact on soft rock and subjective states are higher when soft rock is listened to with friends rather than when alone. Subjective states when listening to soft rock were also higher when the participants were listening in the bedroom. Top 40 and Hard Rock / Heavy Metal were shown to be experienced positively across most social contexts, with the exception of within the presence of family members. This study was limited by the fact that all participants were White. It also appears to have been limited by all music being coded into only four types. It is also limited by being classified by coders, since music type is bound to be subjective to an extent.

Numerous sociologists, cultural geographers, and anthropologists have documented music’s prominent social function across cultures and throughout history

(e.g., Storr, 1992, Levitin 2006). Music is a medium to bring people together and it also has been used to promote a sense of community in some cultures.

Music also plays an important role in many people's religious and spiritual lives. St. Augustine described the role of music in church as an inspiration to one's spirit and devotion to God (Storr, 1992). Of interest, many of the famous compositions by western composers of the Classical era were composed for use in churches (Storr 1992). Much of the U.S. popular music of the 20th century, including country, blues, and rock and roll, descended from gospel music.

People frequently use music to accompany physical activities such as running, weightlifting, or other exercise. Music provides an outlet for people to do things (behavioral) such as sing and listen to music. In fact, music has been identified as very important leisure and lifestyle activity in and of itself (Rentfrow & Gosling, 2003). People spend more time listening to music compared to a lot of other leisure activities (e.g., eating, hobbies) across situations (Rentfrow & Gosling, 2003).

It appears as though music serves a number of important functions in people's lives, and thus may help people cope more effectively. Of interest, few researchers have explored the relationship of music and coping, which is the purpose of this study. In the next section, coping will be defined along with an explanation of key theories in the coping literature as well as a summary of the research on music and coping.

Coping

Coping is a psychological construct that has been widely studied to explore individuals' efforts to deal with life stressors and daily events. Psychologists' interest in the ways people cope with stress has remained strong over the past 30 years. Coping as

defined by Folkman and Lazarus (1988) refers to a state-oriented process (i.e., thoughts, feelings, or actions in the moment) to deal with stress. Coping styles and strategies have been associated with a number of factors including self-exploration in career decision-making for college students (Robitschek and Cook, 1999), personality and ego defense (Haan 1977), and child and adolescent development (Murphy & Moriarty, 1976) including developmental issues for high risk children (Werner & Smith, 1982).

Several coping measures have been designed to meet the demand of coping researchers (Folkman & Lazarus, 1988; Zeitlin, 1985; Cook & Heppner, 1997), for example, the Ways of Coping Questionnaire (WCQ, Lazarus & Folkman, 1988), the Coping Inventory for Stressful Situations (CISS) (Endler & Parker, 1994), the COPE (Carver et al., 1989), and the Coping Strategies Inventory (CSI) (Tobin et al., 1989). The CISS, like the Coping Inventory, looks at individuals' coping styles. The CSI, like the WCQ, asks the respondent to indicate which coping strategies were used in a specific situation. 23 of the CSI's 72 items are taken from the original WOC. (Folkman & Lazarus, 1980). The COPE is somewhat unique in that it has different instructions which enable it to measure either general coping style or coping with specific events. Cook and Heppner (1997) conducted a psychometric study of these three coping measures (CISS, COPE, and CSI). Through factor analysis they arrived at a three-factor model of coping. These factors were Problem Engagement ("consisting of problem-focused, task-oriented coping efforts", Cook & Heppner 1997, p. 919), Social/Emotional (including social support), and Avoidance (emotion-focused avoidance).

Different theoretical frameworks of coping have been created for and derived from these various measures, and used to help mental health professionals understand the

ways that people cope with stress. For example, Zeitlin (1985) theorized that productive coping consists of behaviors that are socially responsible, enhance self-esteem, and produce desired results. Flexible coping involves use of a variety of strategies. Active copers initiate and sustain mental and/or physical action when they cope.

Folkman and Lazarus (1988) have also defined coping into two main types which include emotion-focused and problem-focused coping. Problem-focused coping is used when people feel that they can change their situation whereas emotion-focused coping tends to be used when acceptance of the situation is necessary.

Folkman and Lazarus theorize that coping is more of a state variable than a trait variable. In other words, they believe that the same people will use different coping strategies in different situations, rather than adhering to a specific personal style of coping. This is based on their own research indicating that coping is a changing process more than a static trait (Folkman & Lazarus 1985). A review of the literature indicates that the WCQ is the most utilized coping measure in the published research literature on coping.

Coping strategies, as measured by the WCQ, have been associated with a number of variables including physical indicators of well-being (Sarid et al 2004), problem-solving ability (Blankstein, Flett, & Watson, 1992), race and body image perceptions (Pikler & Winterowd 2003), spiritual well-being (Franklin 2008), and college satisfaction (Carter 1998). Of interest, little to no research has been conducted to explore how specific activities such as exercise, art, music, sports, and other hobbies help people cope with stress and/or daily life.

Music and coping. Despite overwhelming evidence illustrating the effectiveness of music in altering mood states in music therapy studies, there are one group of researchers to date who have explored the impact of music on coping. Labbe et al. (2007) conducted a study looking at the use of music to cope after exposure to a stressor. Fifty-six college students were randomly assigned to one of four groups by music type: heavy metal, classical, self-selected, and silence. Participants were administered a “mentally challenging test”. They were then administered the Relaxation Rating Scale, State-Trait Anxiety Inventory, State-Trait Anger Expression Inventory, and Music Rating Scale. After listening to their assigned type of music or silence, these four scales were administered again. Physiological data such as heart rate and respiration were also gathered throughout the process using sensors. The results of the study supported the researchers’ hypothesis that classical and self-selected music significantly reduced anxiety and increased relaxation after exposure to a stressor when compared to heavy metal music and silence. In summary, there is research evidence for the function of music, particularly classical music and self-selected music, in coping with anxiety and stress as well as enhance relaxation responses in college students.

While results of studies such as these imply (as an assumption, or in reference to specific case studies) that people use music as a coping strategy, researchers have failed to provide any type of theoretical framework to explain music coping, because no such framework or way of measuring it currently exists. Music serves a number of important functions in people’s lives including enhancing cognitive/academic achievement, spirituality, physical performance, emotional well-being, behavior change, and social relationships. The purposes of this study were to explore how music preferences and

music function (i.e., cognitive, spiritual, physical, emotional, behavioral, and social) relate to coping in college students.

Summary

In summary, some researchers have explored music preferences and how music related to academic and/or cognitive performance as well as other variables including personality and emotional well-being (i.e., suicidality). Scant research is available on the functions of music in people's lives. Music appears to function as a medium to enhance cognitive/academic performance, mood, motivation, and is used in educational and spiritual/religious contexts, psychotherapy and rehabilitation settings, as well as for personal use. While there is an extensive literature on coping in general, little is known about the relationship of music preferences and music function on coping strategies. We need to learn more about how music preferences and music function may serve in helping people cope with specific stressors in their daily lives, which is the purpose of the present study.

Appendix B

Definition of Terms

Definition of Terms

Coping: “The cognitive and behavioral efforts to manage specific external and/or internal demands appraised as taxing or exceeding the resources of the individual”

(Folkman & Lazarus 1988, p. 2). Types of coping include:

Accepting Responsibility: A type of coping in which one “Acknowledges one’s own role in the problem with a concomitant theme of trying to put things right” (Folkman & Lazarus 1988 p. 7).

Confrontive Coping: A type of coping that “Describes aggressive efforts to alter the situation and suggests some degree of hostility and risk-taking” (Folkman & Lazarus 1988, p. 7).

Distancing: A type of coping that “Describes cognitive efforts to detach oneself and to minimize the significance of the situation” (Folkman & Lazarus 1988, p. 7).

Escape-Avoidance: A type of coping that “Describes wishful thinking and behavioral efforts to escape or avoid the problem” (Folkman & Lazarus 1988, p. 7).

Planful Problem Solving: A type of coping that “Describes deliberate problem-focused efforts to alter the situation, coupled with an analytic approach to solving the problem” (Folkman & Lazarus 1988, p. 7).

Positive Reappraisal: A type of coping that “Describes efforts to create positive meaning by focusing on personal growth. It also has a religious dimension” (Folkman & Lazarus 1988, p. 7).

Seeking Social Support: A type of coping that “Describes efforts to seek informational support, tangible support, and emotional support” (Folkman & Lazarus 1988, p. 7).

Self-Controlling: A type of coping that “Describes efforts to regulate one’s feelings and actions” (Folkman & Lazarus 1988 p. 7).

Demographics: These are variables describing the participants in the study. The specific demographic variables gathered in this study will include age, sex, race, relationship status, sexual orientation, academic class, living arrangement, community type, and family income.

Function of Music Listening: Refers to the spiritual, physical, behavioral, social, emotional, or cognitive purposes that music listening serves for an individual. A 30-item questionnaire was developed for this study to assess the functions of music listening.

Music: Musicians, music listeners, and music scholars differ widely in their definitions of the word “music”, with some arguing that the word cannot and should not be defined at all. Generally speaking, music is a collection of sounds, created for the purpose of artistic expression. For the purpose of this study, it is up to each respondent to use his or her own accepted definition of the word.

Music Preference: Refers to an individual’s tendency to have preference for different genres of music. Music preferences will be measured by the 14-item STOMP.

Appendix C

Informed Consent Form

INFORMED CONSENT FORM

You are invited to participate in a study designed to explore music preferences and music use as well as how people feel and cope with life events. Participation would involve completing a demographic page and two questionnaires. One possible benefit of participation might be an increased awareness of your music preferences and the role music serves in your life as well as how you cope with a recent stressful event. The results of this study will inform educators and mental health professionals on how music can assist people in coping with stress.

There are no foreseeable risks in participating in this study. It is possible that you may become more aware of the stress in your life and how you cope as a result of participating in this study.

If you chose to participate in this study, all of your survey information provided will be kept confidential. You will not write your name anywhere on the survey. If you are receiving extra credit for participating in this study, you will list your name on a separate form so that your instructor knows you participate. There are alternative means to achieve course credit besides participating in this study.

If you have any questions regarding this study, please feel free to contact Tim Mulligan, M.S. or Carrie Winterowd, Ph.D. in the School of Applied Health and Educational Psychology, 434 Willard Hall, Oklahoma State University, (405) 744-6040. Thank you for your participation. For information about research participants' rights, please contact Shelia Kennison, Ph.D., Chair, OSU Institutional Review Board, 219 Cordell North, Stillwater, OK 74078-1038. (405) 744-5700.

Appendix D

Measures

DEMOGRAPHIC PAGE

Directions: Please answer each question by filling in the blank, checking the blank, or circling the number that best describes you.

1. Age: ____ years

2. Sex: ____ a.) Female ____ b.) Male

3. Race: (check all that apply)

____ a.) African American

____ d.) Caucasian/White

____ b.) American Indian/Native American

____ e.) Hispanic/Latino/Latina

____ c.) Asian/Asian American

____ f.) Other: _____

4. Relationship status:

____ a.) Single

____ d.) Separated

____ b.) Partnered (living with partner)

____ e.) Divorced

____ c.) Married

____ f.) Widowed

5. Sexual Orientation:

____ a.) Heterosexual

____ b.) Gay

____ c.) Lesbian

____ d.) Bisexual

6. Year in College:

____ a.) Freshman

____ c.) Junior

____ e.) Graduate Student

____ b.) Sophomore

____ d.) Senior

____ f.) Special Student

7. Which of the following best describes your current living arrangement?

____ a.) On-Campus residence hall

____ d.) Off-Campus with parent(s)/guardian

____ b.) On-Campus apartment

____ e.) Off-Campus (not with parents)

____ c.) Sorority or Fraternity house

8. In what type of community were you primarily raised?

____ a.) Urban (city of more than 50,000)

____ b.) Suburban (town or area next to a city of more than 50,000)

____ c.) Rural (town of less than 50,000 and not next to an urban area)

9. What is your approximate annual family income (parents' income combined)?

a.) ____ Less than \$10,000

g.) ____ \$40,001 – 50,000

k.) ____ \$80,001 – 90,000

b.) ____ \$10,001 – 20,000

h.) ____ \$50,001 – 60,000

l.) ____ \$90,001 – 100,000

c.) ____ \$20,001 – 30,000

i.) ____ \$60,001 – 70,000

m.) ____ 100,0001 – 110,000

d.) ____ \$30,001 – 40,000

j.) ____ \$70,001 – 80,000

n.) ____ 110,001 – 120,000

STOMP

For the following items, please indicate your basic preference level for the genres listed using the scale provided.

1-----2-----3-----4-----5-----6-----7
Strongly Neither Like Strongly
Dislike Nor Dislike Like

1. _____ Classical
2. _____ Blues
3. _____ Country
4. _____ Dance/Electronica
5. _____ Folk
6. _____ Rap/hip-hop
7. _____ Soul/funk
8. _____ Religious
9. _____ Alternative
10. _____ Jazz
11. _____ Rock
12. _____ Pop
13. _____ Heavy Metal
14. _____ Soundtracks/theme songs

Scoring for the four music preference dimensions:

Reflective & Complex: 1, 2, 5, 10

Intense & Rebellious: 9, 11, 13

Upbeat & Conventional: 3, 8, 12, 14

Energetic & Rhythmic: 4, 6, 7

MFQ

We are interested your reasons for listening to music and the role of music in your life. Please read each item and rate your level of agreement with each of the following statements using this 7-point scale below.

1	2	3	4	5	6	7
Strongly Disagree						Strongly Agree

I listen to music because...

- | | | | | | | | |
|--|---|---|---|---|---|---|---|
| 1) it is energizing. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 2) it makes me aware of my purpose or meaning in life. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 3) I like to dance. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 4) it distracts me from my emotional pain. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 5) it connects me with nature. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 6) it helps me appreciate the goodness in life. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 7) it helps me understand my struggles | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 8) it helps me exercise / work out. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 9) it helps me connect to God or a higher power. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 10) it distracts me from my physical pain. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 11) it relaxes me. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 12) it motivates me to be productive. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

1	2	3	4	5	6	7
Strongly						Strongly
Disagree						Agree

I listen to music because...

13) it helps me to appreciate the world in which I live.	1	2	3	4	5	6	7
14) it helps me finish work and/or school tasks	1	2	3	4	5	6	7
15) it serves as background noise.	1	2	3	4	5	6	7
16) it helps me feel connected w/ those around me.	1	2	3	4	5	6	7
17) it helps me meditate and/or pray.	1	2	3	4	5	6	7
18) it's cool.	1	2	3	4	5	6	7
19) it helps me feel less alone.	1	2	3	4	5	6	7
20) it helps me get in the mood to be social.	1	2	3	4	5	6	7
21) it makes me feel good.	1	2	3	4	5	6	7
22) it helps me change the mood I'm in.	1	2	3	4	5	6	7
23) it gives me confidence to relate to others.	1	2	3	4	5	6	7
24) it helps me vent my frustration.	1	2	3	4	5	6	7
25) it helps me to focus when I study or work.	1	2	3	4	5	6	7
26) I can relate to the lyrics.	1	2	3	4	5	6	7

1	2	3	4	5	6	7
Strongly						Strongly
Disagree						Agree

I listen to music because...

- | | | | | | | | |
|--|---|---|---|---|---|---|---|
| 27) it helps me express my emotions. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 28) it helps me to think through problems. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 29) it's part of my group identity. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 30) I like to analyze the musical structure (key, meter, harmony, parts, etc.) | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

Appendix E

Resource List

Resource List

Thank you for participating in this research study. As a result of your participation in this study, you may become more aware of your music preferences, the role of music in your life as well as awareness of a recent life stress and how you tend to cope. If you would like to seek counseling services, a list of resources in the area has been provided for you. You may also contact Tim Mulligan, M.S., or Carrie Winterowd, Ph.D., at (405) 744-6040 for other counseling referrals.

This is a list of some centers that provide counseling services to students and to the community.

Counseling Psychology Clinic
1st Floor, Public Information Building
Oklahoma State University
Stillwater, Oklahoma 74078
(405) 744-6980

University Counseling Services
316 Student Union
Oklahoma State University
Stillwater, Oklahoma 74078
(405) 744-5472

Multicultural Development and Assessment Center
320 Student Union
Oklahoma State University
Stillwater, Oklahoma 74078
(405) 744-5481

VITA

Timothy Patrick Mulligan

Candidate for the Degree of

Doctor of Philosophy

Dissertation: THE RELATIONSHIP OF MUSIC PREFERENCE AND
MUSIC FUNCTION WITH COPING IN UNIVERSITY
STUDENTS

Major Field: Educational Psychology, Counseling Psychology specialization

Biographical:

Personal Data: Born in Lincoln, NE, USA on November 14, 1973,
son of Patrick J. and C. Diane Mulligan.

Education: Graduated from Ponca City High School in Ponca City, OK,
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1999, respectively. Completed degree requirements for the Doctor
of Philosophy degree in Educational Psychology at Oklahoma
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Experience: Employed by Philmont Scout Ranch, Cimarron, NM, as
Counselor and Camp Director (Summers 1995-2000); employed
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Assistant, Senior Clinical Counselor, and Adjunct Faculty (1997-
2002, 2003-2006); employed by Texas State University, San
Marcos, TX, as a Psychology Intern (2002-2003); employed by
Valparaiso University, Valparaiso, IN, as Staff Therapist and
Coordinator of Training and Outreach (2006-present).

Professional Memberships: American Psychological Association,
Psychologists for Social Responsibility, Association of
Chicagoland Externship and Practicum Training.

Name: Timothy P. Mulligan

Date of Degree: July 2009

Institution: Oklahoma State University

Location: Stillwater, Oklahoma

Title of Study: THE RELATIONSHIP OF MUSIC PREFERENCE AND MUSIC
FUNCTION WITH COPING IN UNIVERSITY STUDENTS

Pages in Study: 84

Candidate for the Degree of Doctor of Philosophy

Major Field: Educational Psychology

Specialization: Counseling Psychology

Scope and Method of Study: The purposes of this study were to explore the relationship between music preferences and coping strategies, determine the components structure of the function of music listening, and explore the relationship between music function and coping strategies. Participants were 200 undergraduate students at a Midwestern university. They completed the Music Function Questionnaire (MFQ), the Ways of Coping Questionnaire (WCQ), and the Short Test of Music Preferences (STOMP). A principal components analysis was conducted to identify music function components. Multiple regression analyses were conducted to explore the relationships of music preferences components with coping strategies and music function components with coping strategies.

Findings and Conclusions: Three of the four STOMP music preference subscales had significant positive correlations with overall coping scores. Internal consistency reliability estimates for these subscales with this sample were lower than expected, however, so these results should be interpreted with caution. A one-factor solution emerged for music function from the MFQ. Music function was positively and moderately correlated with overall coping. In addition, the eight coping subscales were significantly and linearly related to music function. MFQ may actually be a measure of “music coping” rather than a measure of dimensions of music function. These results can help clinicians to explore and understand the role of music in the lives of their clients, and how music may be used to help them cope with specific stressful life events.

ADVISER'S APPROVAL: Carrie Winterowd
