BRIEF SYMPTOM INVENTORY: MUSIC AND NON-MUSIC STUDENTS

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The present study is a comparison of music and non-music students with respect to their response patterns on the Brief Symptom Inventory as well as several demographic questions. The sample consisted of 148 non-music students and 141 music students at three levels: (1) freshmen/sophomore; (2) juniors/seniors; and (3) graduate students. Music students consisted of volunteers from several different music classes and non-music students were volunteers from non-music classes. There were no significant differences found among or between groups for the BSI subscales. However, music students were significantly less likely to have gone to counseling in the past and to seek professional counseling for future problems. Recommendations for psycho-educational interventions with musicians are discussed as well as suggestions for future research.
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BRIEF SYMPTOM INVENTORY: MUSIC AND NON-MUSIC STUDENTS

In the past twenty years, there has been an increasing interest in the psychology of musicians and musicianship (e.g., Davies, 1978; Wills, 1984; Cohen & Kupersmith, 1987; Kemp, 1996). This interest has spawned a body of literature examining areas such as musicians’ personality styles (e.g., Kemp, 1981, 1982, 1996; Marchant-Haycox, & Wilson, 1992), musician’s coping patterns (e.g., C. L. Barney Dews, 1989), psychotherapeutic facilitation of musician’s creativity (e.g., Ostwald, 1992), musical performance anxiety (e.g., Clark, & Williams, 1991; Salmon, 1990; Wesner, Noyes, & Davis, (1990), and psychiatric and psychological problems of performing artists (Ostwald, & Avery, 1991; Young & Hipple, 1996; Chesky & Hipple, 1997; Young, Hipple & Chesky, in press).

The goal of this study is to help illuminate the psychological profile of the musician by comparing music students to non-music students with respect to self-reported psychological problems. As a foundation for the proposed study, this paper will review the pertinent literature in several related areas, to include: (1) Literature exploring the personalities/psychological profiles of musicians (e.g., Wills, 1984; Kemp, 1996) which will include literature specifically attending to the music student (e.g., Barney Dews & Williams, 1989; Marchant-Haycox & Wilson, 1992; Young & Hipple, 1996; Hipple & Chesky, 1997); (2) musical performance anxiety (e.g., Wolfe, 1990; Salmon,
1990; Plaut, 1988; Nagel, 1990; Brodsky, 1996); and another area that has been given some attention in the literature, the relationship between creativity and psychopathology (e.g., Jamison, 1995; Wright, 1997). Musical performance anxiety will be treated separately due to the large amount of attention it has been given in the literature. In fact, of all of the areas previously mentioned, the literature related to musical performance anxiety is by far the most extensive. As will be exemplified by the following discussion of the literature, it is often the case that the study of musicians will be included in a broader exploration of performing artists in general.

Several researchers have set out to shed light on the personality characteristics of the performing artist. Marchant-Haycox and Wilson (1992) attempted this by administering the Eysenck Personality Profiler and a stress symptom checklist to 162 performing artists (33 actors, 26 dancers, 65 musicians and 38 singers). These authors reviewed and were somewhat critical of much of the earlier work in this area (Kemp, 1980; Wills & Cooper, 1988; Wilson, 1984, Bakker, 1988) because of its reliance on a psychoanalytic approach, making it unclear how the measuring instruments were used to arrive at the conclusions from these studies. Marchant-Haycox and Wilson compared a sample of performing artists (N=162) to a control sample (N=800) provided by Corporate Assessment Ltd, a personnel selection company. The performing artists were contacted through various colleges of music, ballet, and drama and by approaching such institutions as the English National Opera, London Symphony Orchestra and the Royal Opera House. These researchers utilized two instruments: (1) The Eysenck Personality Profiler and (2) The Health Survey Questionnaire. The results indicated that “generally speaking, the performing artists are introverted, emotionally unstable and cautious compared with the
(predominantly commercial) controls. However, there were some notable variations among the different types of performing artist. Actors tend toward extraversion...while musicians are clearly the most introverted” (Marchant-Haycox and Wilson, 1992, p. 1064). Other findings that relate to the musician indicated that they have a tendency to be unsociable, cynical, inactive, submissive, unambitious and controlled as well as low in adventurousness. Musicians did, however, appear to be the most empathic of all the groups tested. The researchers concluded that not only does the study indicate that groups within the performing arts have different personality characteristics, but also that as a group musicians tend to be unadventurous and introverted. An additional finding was that musicians tended to have higher than normal levels of stress in their lives.

These findings appear to align well with the findings of Kemp (1981, 1982c, & 1996) who by far has done the most empirical work aimed at revealing the personalities of musicians. His work culminates in his book “Psychology and Personality of Musicians: The Musical Temperament” which is the most comprehensive work pertaining to the musicians’ personality. Kemp’s research includes studies of high school and college/music conservatory students as well as professional musicians. In a study utilizing these three groups’ responses on Cattell’s 16PF and the High School Personality Questionnaire (HSPQ), Kemp found that young musicians tend to be less adept interpersonally and more controlled. The more talented students tended to be more introverted and anxious than the less talented students. He additionally finds that musicians tend to have higher levels of intelligence that do non-musicians. He states “It might have been suspected that the non-musical groups had been entirely responsible for producing the differences on intelligence, but even when the music students were
compared with the undergraduate norms their level was marginally higher” (Kemp, 1981a, p. 11).

Kemp believes that research is showing support for the notion of a stable group of personality characteristics over the life-span for the musician and states that three of these are introversion, pathemia (e.g., imagination and sensitivity), and intelligence. He does, however, have an interesting way of dismissing other studies (e.g., Shatin, Kotter and Longmore, 1968) in that he hypothesizes that studies conducted on American musicians which indicate a tendency toward extroversion may be slanted because of a faking-extroverted bias influenced by social desirability or the context in which the musicians performed (e.g., for hospital patients). Davies, in review of Kemp’s book, points out the possibility that U.K musicians may have been faking-introverted and points to the arbitrariness of claiming that one set of data is tapping into fixed/stable characteristics while the other is picking up a bias in responding. It certainly seems plausible that there is a cultural difference that is being detected by these researchers.

Considering the possible gender influences, Kemp (1982b) compared males and females from these three groups and found that females tended to show more divergence than the males from their respective comparison group of non-musicians. Again, the school children in his sample completed the Anglicised version of the HSPQ and students and professional musicians were tested with the 16PF Questionnaire. Female musicians appeared to be aloof and self-sufficient at rates higher than would be found in females in the general population. Males also differed somewhat from the typical male in that they were inclined toward the more feminine trait of sensitivity. Kemp discusses how these
factors may account for high levels of sex-identity ambivalence among creative groups (Roe, 1959; Barron, 1957).

Kemp (1981b) attempts to establish a similar “profile” for the composer by looking at a student sample of male composers as well as a sample of professional composers (28 male and 10 female). The comparison groups for these two were music students (non-composers) and professional musicians (non-composers) respectively. Kemp compared these groups using Cattel’s 16PF. The results of this study appeared to support his earlier study of composers (Kemp, 1971) in that they showed tendencies towards introversion and lower moral upbringing. The lower moral upbringing, according to Kemp, should not be understood in moral terms, but more as an indicator of a refusal to be bound by external pressures and norms. Kemp indicates that introversion “must not be viewed as a timid withdrawal from social involvement. It is highly indicative of strength of the inner person and his colourful, imaginative and symbolic thought process” (Kemp, 1981b, p. 72). While composers are similar to musicians with respect to their profile, they tend to have scores on the 16PF which are more extreme. Perhaps the extreme nature of their profile accounts for the limited number of persons that pursue music composition.

In his final article in a series of four, Kemp (1982c) discusses a comprehensive model for conceptualizing musicians’ personalities. He reiterates the findings indicating that musicians tend to be more introverted, sensitive (i.e., pathemia), and intelligent and argues that these are stable traits over the life-span for musicians. While these tend to be stable traits, other traits appear to serve a particular purpose only at certain stages in the development of musicianship. “In children, superego strength and personal
control...appear to be necessary for the development of good practice habits. In studenthood, whilst superego strength continues to be important, personal control is replaced by a certain seriousness indicated by desurgery [i.e., introversion]. At adult levels, where presumably work habits are fully integrated into a regular life-style, these traits become largely redundant’(Kemp, 1982c, 3). Kemp concludes that, contrary to other researcher’s claims that musicians are a heterogeneous group, on the whole this group appears to share a common core of traits. As will be demonstrated, not all work in the area of musicians’ personalities aligns with the work of Kemp.

Dyce and O’Conner attempted to advance the work of Wills (1984) who, in a study (utilizing the Eysenck Personality Questionnaire) of professional musicians, found that guitarists, as compared to other musicians, had the highest rates of neuroticism and psychoticism and that drummers had the highest rates of extraversion. Dyce and O’Conner (1994) went a step beyond the work of Wills by studying popular musicians in “real life” small groups. They attempted to explore the personality characteristics of drummers, guitarists, bass players, and singers working in country and rock bands. The subjects were 171 musicians (159 males and 12 females) taken from 54 bar bands (9 country and 45 rock). These researchers not only utilized self-reports, but also relied on observation of the performers. The subjects completed ratings of personality from the Interpersonal Circumplex. These researchers found these popular performers to be more extroverted, arrogant, dominant, open to experience and neurotic than a sample of university males. Likewise, the work of Martin (1976) indicated that performing musicians as well as students interested in pursuing music tended be more extroverted.
Wills and Cooper (1989) also turn to the professional musician in their analysis of the various pressures experienced by this creative group. They begin by pointing to the lack of research geared toward those in the creative arts (e.g., musicians, artists, etc.). At the time of their article, they were able to state, “While there is some academic literature regarding stress and the classical musician, there is virtually none regarding the popular musician (Wills & Cooper, 1984, p. 17). These authors interviewed a sample (approximately 20) of popular musicians to get an idea of the types of stressors experienced by this group. They subsequently created and administered a 12-item questionnaire to 70 popular musicians. This questionnaire was developed to get a measure of the musicians’ perceived job pressures and the questions were divided into the following four areas: (1) Factors Intrinsic to the Job; (2) Career Development; (3) Relationships at Work; and (4) Effects of Social and Family Life. In addition to this questionnaire, these researchers administered the Eysenck Personality Questionnaire. The sample consisted of 16 brass players, 10 drummers, 11 pianists, 10 guitarists, 13 saxophonists, and 10 bass players. All musicians were from the London and Manchester area. These researchers found that 10 out of the 12 items from the questionnaire were being acknowledged as sources of stress. These items, listed in the order of the amount of stress it is producing are: (1) “Need to reach self-imposed standard of musicianship,” (2) “Not getting enough gigs,” (3) “Pressure on personal relationships,” (4) “Anxiety playing live,” (5) “Work overload,” (6) “Anxiety playing in the studio,” (7) “Work underload,” (8) “Lack of pensions and benefits,” (9) “Relationships at work,” and (10) “Career development.” “Being treated as a second class citizen” and “Shift work” were the only items of the 12 that did not appear to be a significant source of stress.
These authors point to the fact that most musicians make less than the UK national average in terms of annual salary. This group of musicians scored higher on Neuroticism than professional groups provided by Eysenck on the Eysenck Personality Questionnaire. The authors hypothesize that perhaps the high number of stressors experienced by musicians produces a higher than average level of worry.

Alcohol consumption appeared as a possible problem area for these musicians as a full 43% indicated they consumed at least three pints of beer, or the equivalent, per day. Thirty-six percent stated that they drink at least one beer prior to playing to calm the nerves. “Thus, it appears that a not inconsiderable amount of drinking takes place among musicians, for both social and anxiety reduction reasons. Of the sample, seven percent had received medical treatment for alcoholism” (Wills & Cooper, 1984, p. 20).

Hamilton, Kella and Hamilton (1995) continue the work with the professional in a study exploring the personality and occupational stress in a group of elite performers. These researchers sought to compare elite professionals in music and classical dance, to performing arts that have somewhat different sources of stress. However, one common source of stress between these professions is that both are extremely competitive and this often makes it difficult for artists in these professions to find employment. Hamilton et al. surveyed a total of 48 leading musicians and dancers from the New York area (25 men and 25 women). The dancers were recruited from a pool of persons participating in an injury study and the musicians were recruited from the Local 802 Associated Musicians of Greater New York. Only persons playing instruments from the string family were selected to control for possible inter-instrument differences.
To assess psychological factors, the Adult Personality Inventory was given to all subjects. This instrument assesses 21 traits associated with normal functioning (e.g., extravertedness, independence, hostility, etc). All subjects also completed the Occupational Environment Scales, the Personal Strain Questionnaire, and the Personal Resources Questionnaire.

The findings of this study indicate that female musicians tended to be less tough-minded and more independent and creative than the average female. Also, the musicians tended to be less caring and adaptive and more hostile, rebellious, and sociable. This “less caring” finding appears to contradict the earlier mentioned findings of Merchant-Haycox and Wilson, which indicated that musicians tended to be quite empathic.

Additional findings are that both groups of males tended to be less extroverted than the norm. Additionally, they were found to be less disciplined, tough-minded, and adjusted than the norm. Male performers were found to be less assertive and caring and more rebellious, submissive, hostile, and withdrawn. The only “positive” trait was their higher levels of creativity. Both males and females reported higher than average levels of stress arising from their work schedules, with dancers endorsing more symptoms than musicians. Male musicians and dancers alike had scores higher than average for “mood problems.” Their scores indicated they were more depressed, anxious, and irritable than average. “Scores below the 40th percentile indicated that the male performers had less social support (SS) and did not make use of rational/cognitive coping strategies (RC) as frequently as does the average man” (Hamilton et al., 1995, 88). The authors end their discussion by stating that psychology could be very useful in targeting potential problems with these creative persons, beginning at the student level. These sentiments are echoed
in the words of Linda Hamilton (1997) who states: “The emotional costs of a vocation in the performing arts can have a significant impact on the lives of dancers, musicians, actors, and singers. Can students be better prepared to cope with the realities of this career? I believe that the answer is a resounding “yes” if we develop programs that use psychology as a guide in artistic development” (Hamilton, 1997, p. 70).

An additional study conducted to assess the stress associated with musicianship sought to evaluate the ways in which orchestral musicians were coping with the stress of performance. Bartel and Thompson (1994) surveyed 204 orchestra performers from the Organization of Canadian Symphony Musicians. These researchers sought to measure the level of stress experienced by this group as well as evaluate the use of various coping strategies and their effectiveness. The sample of performers included persons from small, medium, and large orchestras, from all orchestral sections, and of all ages and both genders.

The results of this study indicate that 96% of those responding to the survey reported experiencing stress related to musical performance. Those musicians under 40 and over fifty reported higher levels of performance related stress than those in their 40’s. There were, however, no differences based on gender, instrument, principal/non-principal status, size of orchestra, additional teaching/playing or time with orchestra. The following are stress symptoms that were most commonly experienced by this group: (1) Increased heart rate, 58.7%; (2) Concentration problems, 45.8%; (3) Panic, 36.3%; (4) Tremors, 35.8%; (5) Muscle Aches & Spasms, 35.3%; (6) Chills, 32.8%; (7) Breathing problems, 23.9%; (8) Coordination problems, 21.4%; (9) Abdominal problems, 20.9%; (10) Diarrhea, 20.4%; (11) Worry, 19.9%; (12) Lack of confidence, 14.4%; (13) General
nervousness, 12.4%; (14) Troubled sleep, 11.9%; (15) Irritability, 11.4%. These researchers found that their sample of musicians utilized several coping strategies to cope with the stress of performing. Music rehearsal, music warm-ups, listening to music, humor, beta-blockers, exercise and affirmation were among the most commonly employed strategies to reduce levels of stress. Music preparation, exercise, and beta-blockers were considered to be the most effective coping strategies. While musicians listed beta-blockers as a helpful agent, some indicated that they sometimes diminished performance and occasionally produced side-effects. One of the most common side-effects, and perhaps one of the most serious, is a reduced level of emotional involvement with the music. The present study points to the higher than average levels of stress this creative group is experiencing as well as the many ways in which they are coping with it.

Researchers utilize studies indicating that musicians have somewhat different personality profiles as the basis for searching for an explanation of these differences. Robson and Gitev (1991) explore a possible link between the family background of musicians and psychological problems. Their study looks at similarities and differences in family backgrounds between talented art students, regular high school students, and another group of academically gifted students. They compare the family backgrounds of 32 talented music students and 30 talented dance students as well as 60 academically gifted students (at least 140 IQ on WISC-R) and 64 regular academic students. It should be noted that this sample consists of 82% females and 18% males.

The results of this study address four common hypotheses about the family backgrounds of talented artists: (1) Talented students are more likely to be immigrants. The results of the present study do not support this hypothesis as 92% of the art students
were born in Canada; the study was conducted in Canada. (2) Talented students’ parents are wealthy, gifted, or highly educated. This hypothesis was not confirmed by the present findings. “In fact, arts students are not as economically advantaged as gifted students. Dancers’ mothers and fathers are significantly lower in occupational status than parents of regular students. Socioeconomic status based on housing quality and income shows a similar pattern” (Robson & Gitev, 1991, 100). (3) Students of the arts are likely to have parents who are somehow affiliated with the arts (e.g., via profession or interest in the arts). This hypothesis was confirmed. The results indicated that having parents involved in the arts gives the student of the arts an advantage. (4) Parents of art students are living vicariously through their children because of somehow being denied an opportunity to pursue the arts themselves. This appears to be somewhat supported by the data. The parents of the art students are very supportive but also conveying their high expectations to their sons and daughters. These expectations are at rates significantly higher than those of parents of academically gifted students.

In summary, “Parents of art students in the current Ontario sample are not likely to be recent immigrants to Canada; are lower to middle class; are fairly well educated, with 62% having attended college; may have an arts career or share an interest in the arts with the student; and have very high academic expectations of their children” (Robson & Gitev, 1991, p. 101).

Many researchers have been looking at a possible link between the creativity possessed by musicians and other artists and psychopathology. One need not search very long to compile a list of artists from one or another discipline who have openly struggled with psychological difficulties (e.g., Handel, David Helfgott, Charlie Parker, Vincent van
Gogh, Georgia O’Keeffe, Robert Schumann, Charles Mingus) (Jamison, 1995). In fact, psychological difficulties have plagued notable artists at such a rate that some researchers argue strongly that there is a link between creativity and certain psychological disorders.

Kay Redfield Jamison (1995) suggests that there might be a link between the Bipolar disorders and creativity. She lists several artists (many included in the previous list) who appear to have suffered from bipolar disorder. Jamison discusses the diagnostic criteria of certain mood disorders and asks whether those with these disorders may in some way have certain creative advantages. She explains that most persons diagnosed with bipolar disorder do not seem to have creative genius and most creative geniuses do not have bipolar disorder. In Jamison’s opinion, to assume a one to one correlation between creativity and psychopathology would be a gross oversimplification of whatever relationship does exist between the two. Although not believing there to be a perfect positive correlation between the two, she does however indicate that researchers have been documenting a link between the two for centuries. Although most of these inquiries were substandard with respect to scientific rigor, recently there have been several systematic studies of artistic populations (e.g., Andreason and Cantor in the 70’s and Jamison and Wright in the 90’s) which Jamison feels substantiates the claims of a link between creativity and bipolar disorder.

Wright (1997) reports that Andreason and Cantor compared 15 writers to 15 matched controls and found that while only one of the control subject had previously been treated for an affective disorder, 10 of the writers had been previously treated. Wright states that while there have been several studies conducted looking at the prevalence of affective disorders among artists, very few studies have looked specifically
at the prevalence among musicians. He further states that we do seem to have some
evidence from biographical data that affective disorders may have plagued the lives of
some of our greatest composers and musicians (e.g., Mozart).

In summary, there appears to be somewhat of a consensus among researchers that,
to say there is a link between creativity in the arts and certain affective disorders, is
certainly a defendable position (Wright, 1997). These researchers will also warn that the
relationship between the two is probably not a simple one. According to Wright, “At this
time...what has been demonstrated is actually a correlation between creativity and
bipolar disorder. There most certainly is a complex interaction between the two
concepts, each influencing and changing the other in a complex fashion (Wright, 1997, p.
92).

One of the most serious issues facing many musicians, as has been demonstrated
in the aforementioned research, is the issue of performance anxiety. There is a
substantial body of literature which addresses the etiology and treatment of musical
performance anxiety (e.g., Brodsky, 1996; Nagel, 1990; and Salmon, 1990).

Salmon (1990) asks whether we might be at a point where it might be possible to
have more of an integrative understanding and treatment of musical performance anxiety.
Salmon suggests the use of the term “musical performance anxiety (MPA)” instead of
“stage fright” to underscore the fact that much of the anxiety and psychological
discomfort experienced by performers occur far before the actual performance. “MPA is
defined as the experience of persisting, distressful apprehension about and/or actual
impairment of, performance skills in a public context, to a degree unwarranted given the
individual’s musical aptitude, training, and level of preparation” (Salmon, 1990, p. 3).
According to Salmon, a review of the literature lends support to the following four statements about musical performance anxiety:

1. MPA comprises a loosely correlated constellation of physiological, behavioral, and cognitive variables. According to the specific situation, these three variables will interact in a way that produces variable levels of anxiety. In a more stressful situation, the interaction of the three will result in very high levels of stress and anxiety, which will give rise to or come from negative cognitive evaluations. The author points out that different procedures are necessary to measure these three factors.

2. The physiological component of MPA reflects arousal associated with the autonomic nervous system (ANS) which, largely through conditioning, has become excessively associated with fear. Salmon notes that Esyenck believed that introverts were more prone to anxiety than are extroverts. This is a particularly interesting notion in the context of this discussion, considering the empirical support for the idea that musicians tend to be more introverted. He goes on to point out that although there is a relationship between arousal level and performance efficiency, it is difficult to determine what the optimal arousal level is. Much of this will depend upon the musician’s interpretation of the arousal being experienced.

3. The anticipation of stressful events, musical or otherwise, can evoke as much (if not more) anxiety than the event itself. Studies have indicated that this appears to be as true for experienced performers as it is for the novice (e.g., Salmon, Schrodt, and Wright, 1989). Studies indicate “that it is
therapeutically helpful (1) to accept anticipatory anxiety as a natural concomitant of performing; and (2) to use the consequent tension to mobilize preparatory activity” (Salmon, 1990, p. 6). A certain level of considering the performance and the possibilities is probably helpful, however, one should not over-analyze the possible outcome of a performance. Instead of reducing the fear during the performance, this over-analyzing of the feared situation may in fact lead to increased levels of anxiety.

(4) Psychotherapeutic interventions for MPA appear to be successful to the degree that they address specific components (cognitive, physiological, behavioral) to the overall profile of anxiety.

Nagel (1990) asks whether some performance anxiety could be attributed to a fear of success. It is more commonly assumed that many performers experience high levels of anxiety due to the fear of failing. While Nagel believes that this is probably often the case, she also contends that the fear of success works to defend one’s self-esteem. This author, who is a musician and psychologist who once suffered from MPA, gives the reader a review of the major theories attempting to explain MPA. The cognitive-behavioral psychologists focusing on negative self-talk and a realization that regardless of the caliber of performance, there will always be some audience members who will not be pleased. Taking a somewhat different perspective, the psychoanalysts focus on traits, attitudes, and unconscious conflicts that become activated in the context of giving a performance. Another perspective is given by the physiologist who might focus on the excess of adrenaline, which gives rise to unpredictable motor coordination. The treatment of choice from this perspective is often pharmacologic and more specifically the use of beta-blockers which reduce autonomic nervous system reactions. Several
researchers have written extensively on the use of beta-blockers in the treatment of musical performance anxiety (e.g., Nube, 1991, 1994; Brandfonbrener, 1990).

Nagel mentions the work of Atkinson (1978) which suggests that both the need to succeed and the need to avoid failure often acts as a motivator for those put in evaluative situations, which may result in perceived failure of some sort. Nagel asks “Are there alternative explanations to the fear of failure theory? For example, if there is a fear of the negative consequences of failure, is there also a fear of the positive outcomes of success (Nagel, 1990, p. 38)? This researcher states that often times a performer will sabotage their performance to avoid success and the occasional responsibility that follows from such success (e.g., high expectations from others). Additionally, she states that often the sabotage will take the form of a more acceptable reason for not succeeding. An example of this would be the musician who allows high anxiety and lack of performance to effect performance rather than attributing it to personal deficiencies. The former are seen as more acceptable reasons for not performing optimally.

Brodsky (1996), in a review and critique of the literature pertaining to musical performance anxiety, indicates that much of the previous research has been methodologically faulty and has led performing arts medicine practitioners to draw inaccurate conclusions about the etiology and treatment of this debilitating problem.

Discussing the prevalence of musical performance anxiety, Brodsky cites the largest study of professional orchestra musicians, which surveyed 2,212 persons. In addition to several expected medical problems, twenty-four percent were suffering from “stage fright,” seventeen percent from “depression,” fourteen percent from “sleep disturbance,” and thirteen percent from “acute anxiety.” These numbers are reportedly
lower than those from British and Canadian studies. According to Brodsky, “Though many authors might explain the prevalence of the above mental health problems of musicians by high-lighting personality deficiencies and residual inclinations or vulnerabilities, there might be much more to be gained by exploring these issues within a career-based context” (Brodsky, 1996, p. 89). Brodsky is referring to such things as the overall stress endured by someone pursuing a career in music and states that this level of stress and anxiety is perhaps higher than that experienced in other professions. This certainly seems to be supported by the fact that the music profession has been cited as one of the top 5 life-threatening professions (Wolfe, 1989). The members of this profession die 20 to 22 percent sooner than the general population. Also, Wolfe (1989) cites a study in which admission records of community mental health centers were examined indicating that musicians are in the top five groups most at risk for mental health problems.

Brodsky feels that the term music-performers’ stress syndrome (M-PSS) is a more suitable label for the condition that researchers and clinicians are trying to understand. He believes the use of this label, which is akin to the accepted nomenclature of the DSM-IV or ICD-10, would allow for the specification of intensity as well as allow for the use of suffixes indicating diagnostic codes (e.g., with/without associated performance anxiety.

In his discussion of intervention studies, although he criticizes these studies methodologically, he points to strong evidence that cognitive-behavioral methods are effective in alleviating musical performance anxiety. These approaches use a combination of methods such as imagery, breathing awareness, cognitive restructuring,
cue-controlled progressive muscle relaxation, and behavioral rehearsal. The cognitive behavioral approach has been found to be more effective than pharmacological interventions such as beta-adrenergic-blocking agents. According to Brodsky, these findings are the only ones in the literature on MPA that appear with relative consistency. Unfortunately, even though evidence indicates that this therapeutic approach can be more effective than medications, musicians still utilize pharmacological treatments more often than therapy.

Barney Dews and Williams continue our analysis of the musician with a discussion of the possibility that musicians and music students are somewhat different than their non-music counterparts. They ask, “Is there something inherent in the personality of an individual that directs him or her toward a career in music? If so, why is this so” (Barney Dews & Williams, 1989, p. 37)? These authors point out the need for studies examining the personality of the musician and music student. They attempt to add to the fund of knowledge related to the emotional and psychological issues facing musicians as well as their ways of coping with difficulties. This is achieved by surveying, via the mail, music students from three schools of music. The schools were selected to provide a representative sample of the music schools throughout the United States. The random sample of students filled out a short questionnaire, designed by the authors, containing 22 issues to be ranked by the respondents believed to be of concern to music students, questions related to the students’ feelings about specialized counseling for music students, and demographic questions. The authors found the following issues to be of most concern to the students: (1) stress; (2) pre-performance nervousness; (3) progress impatience; (4) burnout with musical progress; (5) job insecurity; (6) feeling
conflict between music and one's personal life; (7) inadequate practice facilities; (8) depression; (9) stage fright; and (10) concentration. Few gender differences were found. However, personal criticism was more problematic for females and public misunderstanding was more problematic for males.

One of the most interesting findings from this particular study is that music students often turn to others for help when experiencing problems, but unfortunately professional therapists were usually seen as a last resort. Students indicated they sought assistance from friends, teachers, and family members before considering professional help. Students did indicate a willingness to seek help from a specialized counselor who was familiar with music and able to relate to the special problems of the musician. Peter Ostwald (1987,1992) echoes the sentiments of these students by arguing that those who are in the best position to work with performing artists are those experienced in the arts themselves. “To be in therapy with someone experienced with what it means to be a musician obviously facilitates the treatment” (Ostwald, 1992, p. 402).

To further examine the possibility that music students are facing different problems than their non-music counterparts, Young and Hipple (1996) explored descriptively the presenting problems music students brought to the counseling center at a large southwestern university. This was accomplished by retrieving the case files of all music students who presented for counseling during one academic year. Researchers examined the responses given by these music students to a 50-item problem checklist. In addition to this checklist, all students completed a brief demographic form.

Results from this exploratory study indicate that students were having difficulty related to a number of the items on the list. Twenty percent of the respondents noted they
were experiencing nearly 60% of the items on the checklist. More than 25% of the respondents checked at least 20 items on the list. The 10 most frequently endorsed items were as follows: (1) unable to concentrate well (endorsed by 47% of the respondents); (2) discouraged about future (47%); (3) not being the kind of person I want to be (45%); (4) financial problems (43%); (5) unhappy too much of the time (43%); (6) can't seem to study effectively (43%); (7) unsure of career choice (41%); (8) too tired to do anything (40%); (9) sleep problems (37%); and (10) feeling that nobody understands me (35%). Twenty percent of the respondents reported a concern with their use of alcohol and/or drugs. These authors point to the potential benefit of comparing music to non-music students with regard to the possible differences in social and emotional difficulties experienced by the two groups.

In a study examining performance anxiety, alcohol related problems and social emotional difficulties of college students, Chesky and Hipple (1997) compared lower-division undergraduate music students to non-music students. Subjects (n = 359) completed two versions of the Performance Anxiety Inventory (PAI), a social/emotional problems checklist (i.e., the same problem checklist used by Young & Hipple), and the Young Adult Alcohol Problems Screening Test (YAAPST).

Results of this study indicate that with respect to the PAI, the music and non-music major group expressed similar levels of performance anxiety. The YAAPST yields three separate scores for the respondent: (1) lifetime YAAPST; (2) past year’s YAAPST; and (3) past year’s severity. While there were no significant differences between the two groups for the lifetime YAAPST, music students were found to be
significantly different with respect to the past year’s YAAPST as well as the past year’s severity. These scores were significantly lower for music students.

...when adjusting for both age and gender differences, the music major group reported significantly fewer alcohol-related problems than did the non-music major group over their lifetimes, had significantly fewer alcohol-related problems than did the non-music major group over the preceding year, and the severity associated with alcohol-related problems over the preceding year was significantly less than that for the non-music major group (Chesky & Hipple, 1997, p. 130).

Similarly, music students appeared somewhat more adjusted as they endorsed fewer items on the problem checklist than did their non-music major counterparts. In fact, twenty-nine of the fifty items were endorsed more frequently by the non-music group than the music students.

Chesky and Hipple warn that their findings should not be interpreted to mean that music students are not in need of special assistance aimed at alleviating the problems specific to this creative group. They point to the need for research on similar phenomenon in upper division and graduate students. These students are currently making or have already made that necessary step from the college program to the professional environment. This step likely brings with it increased levels of stress and emotional/psychological difficulties due to the rigors (e.g., competitiveness) of this profession. As with any other life transition, this one will have its difficulties and some persons will pass through with relative ease and others will be seriously challenged.
Young, Hipple, and Chesky (in press) explored the differences between counseling center music majors and non-music majors as well as the differences between clients and non-clients. These researchers compared these groups with respect to their responses to the following seven of the fifty items contained in a counseling center’s symptom checklist: (1) “Not being the kind of person I want to be;” (2) “Discouraged about future;” (3) “Unhappy too much of the time;” (4) “Relationship problems;” (5) “Family problems;” (6) “Fearing failure or rejection;” (7) “Concerned about my use of drugs or alcohol.” No significant differences were found between music and non-music majors seeking counseling. With respect to music students, only one of the seven items (i.e., “Unhappy too much of the time”) was significantly different between client and non-client respondents, with clients endorsing this item more frequently. With respect to non-music students, clients endorsed two of the seven symptoms more frequently than non-clients, “Not being the kind of person I want to be” and “Fearing failure or rejection.”

There appears to be some evidence (i.e., Chesky and Hipple) indicating that non-client music students are somewhat more adjusted than non-client non-music students. It is also possible that music students are dishonestly under-reporting psychological difficulties they are experiencing, as some of the previous research with both professional musicians and student musicians indicated that they were more likely to be “emotionally unstable” or more “neurotic” (Marchant-Haycox and Wilson, 1992; Dyce and O’Conner, 1994). A difficulty with the previous studies, with respect to social/emotional difficulties, is their use of a problem checklist that is lacking psychometrically (Barney Dews and Wilson, 1989; Young and Hipple, 1996; Chesky and Hipple, 1997; Young,
Hipple, and Chesky, in press). Other than the face validity of the items comprising these symptom checklists, there is no reliability or validity data. Additionally, these instruments are somewhat limited in what they are able to tell us about the respondents.

A measure that is more informative with respect to revealing the psychological difficulties experienced by the respondent is Brief Symptom Inventory (BSI), which is a shortened version of the Symptom Checklist 90 – Revised (SCL-90-R). The SCL-90 is a 90-item self-report instrument, which has been extensively used since the 1970's. A relevant study by Cohen and Kupersmith (1986) demonstrates the usefulness of this instrument.

This study comes out of the Performing Arts Center for Health (PACH). This clinic is located at NYU Medical Center and is supported by psychiatrists, psychologists, and social workers who are interested in working with performers. Cohen and Kupersmith compared patients at PACH (N=87) to other psychiatric outpatients (N=1002) as well as 974 normal non-patients with respect to their responses to the SCL-90-R. The PACH patients consisted of 39 professional dancers, 35 actors, and 13 musicians. This particular instrument contains 90 symptoms and asks that respondents indicate the degree to which they have been experiencing each of the symptoms. The 90 items are applied to one of 9 categories of psychopathology: psychoticism, paranoid ideation, phobic anxiety, hostility, anxiety, depression, interpersonal sensitivity, obsessive-compulsive, and somatization. Additionally, this instrument yields three global scores including the Global Symptom Index (GSI).

Results of this study indicated, as was expected, that non-patients scored significantly lower than did PACH patients. A comparison of scores between PACH
patients and the other out-patients indicated that the other out-patients scored higher on all scales. The difference approached significance in the psychoticism, interpersonal sensitivity, depression, and paranoia categories. Additionally, a comparison of the scores of the different performing artist groups revealed no significant differences. While the "performing artist" outpatient is different from other outpatients, there appears to be no difference between the artist groups. This, according to Cohen and Kupersmith, may be evidence of a "performing artist personality." As Kemp argues for the "personality type of the musician," these authors suggest a personality type of the performing artist. "A distinct psychology may be present in those who choose to perform regardless of the particular mode of expression chosen. The administration of the SCL-90 to performing artists who are not involved in psychotherapy would be useful in exploring this possibility" (Cohen and Kupersmith, 1986, p. 142).

The purpose of the present study was to use an instrument with good psychometric properties to explore the possibility that music students are somewhat better adjusted (i.e., reporting fewer psychological difficulties) than are non-music students. While some of the earlier studies seem to indicate that this may be the case, the instruments that were utilized were lacking in reliability and validity data. Based on some of these earlier research findings (e.g., Young, Hipple, & Chesky, in press, & Chesky & Hipple, 1997), this researcher hypothesized that music students would present with a less severe symptom pattern than would non-music students. To test this hypothesis, the present study utilized the Brief Symptom Inventory (Derogatis & Melisaratos, 1983). Since the literature in this area reflects various, sometimes conflicting, perspectives related to the emotional and psychological well-being of the
musician as compared to the non-musician, the goal of this study was to provide empirical support for one perspective or another as well as to point interested researchers towards future research which may be helpful in efforts to approach a more definitive stance on this issue.

Method

Participants

Subjects. Subjects (N = 289) consisted of 141 music and 148 non-music students. Music students were drawn from various music courses (e.g., history of music, performance, various seminar courses, etc.) and non-music students were drawn from various non-music courses (e.g., psychology, English, library science, counselor education, communications, etc). The sample consisted of the following six groups: (1) 51 Freshman/Sophomore non-music students. Mean age = 19.28; SD = 2.44; 17 males and 33 females; (2) 50 Freshman/Sophomore music students. Mean age = 19.89; SD = 2.57; 26 males and 22 females; (3) 51 Junior/Senior non-music students. Mean age = 25.05; SD = 7.81; 10 males and 41 females; (4) 39 Junior/Senior music students. Mean age = 22.66; SD = 3.20; 26 males and 13 females; (5) 46 non-music major graduate students. Mean age = 33.34; SD = 11.18; 13 males and 33 females; (6) 52 music major graduate students. Mean age = 28.09; SD = 5.65; 27 males and 25 females. There was a significant difference between groups with respect to gender distribution. Females accounted for 43% of the music student group and nearly 73% of the non-music student group.

In terms of ethnicity, the music student group consisted of 103 Caucasian, 5 African American, 17 Hispanic, 9 Asian, 1 Native American, and 4 Other. The non-
music student group consisted of 114 Caucasian, 10 African American, 12 Hispanic, 6 Asian, and 5 Other.

Procedure

The questionnaire was administered in a group setting (i.e., classroom) and individually (i.e., some students filled out the questionnaire on their own and returned it to the researcher or their instructor as some instructors would not allow students to fill out the questionnaire during class-time). During group administration, students were separated to make it impossible for one subject to view another’s responses. The questionnaire consisted of the Brief Symptom Inventory and a measure of demographic characteristics and took approximately fifteen minutes to complete. Upon completion of the questionnaire, subjects were given a debriefing form, which explained the purpose of the study as well as encouraged them to contact the researcher with further questions or concerns if they wished.

Instrumentation

Brief Symptom Inventory. This inventory was developed by Derogatis (1975) as a shortened version of the Symptom Check-List – 90. The BSI contains 53 symptom items and asks the respondent to indicate how much, on a 5-point scale (0=“Not at all” – 4=“Extremely”), each of the items is a source of distress. The BSI, like the SCL-90, measure 9 different symptom dimensions: (1) Somatization (reflects distress arising from perceptions of bodily dysfunction); (2) Obsessive-compulsive (includes symptoms that are often identified with the standard clinical syndrome of the same name); (3) Interpersonal sensitivity (this dimension centers on feelings of personal inadequacy and inferiority, particularly in comparison with others); (4) Depression (this dimension
reflects a representative range of the indications of clinical depression); (5) Anxiety (this includes general signs of nervousness and tension as well as panic attacks and feelings of terror); (6) Hostility (includes thoughts, feelings, or actions that are characteristic of anger); (7) Phobic Anxiety (persistent fear response – to a specific person, place, object, or situation – that is irrational and disproportionate to the stimulus and leads to avoidance or escape behavior); (8) Paranoid Ideation (this dimension represents paranoid behavior fundamentally as a disordered mode of thinking); and (9) Psychoticism (this scale includes items indicative of a withdrawn, isolated, schizoid lifestyle, and first rank symptoms of schizophrenia). In addition to these nine dimensions, the BSI yields three global indices of distress: (1) General Severity Index (GSI); (2) Positive Symptom Distress Index (PSDI); and (3) Positive Symptom Total (PST). “The function of each of these global measures is to communicate in a single score the level or depth of symptomatic distress currently experienced by the individual” (Deragotis & Melisaratos, 1983, p. 597). This scale has been developed so that it may be utilized with persons having obtained a reading knowledge equivalent to a sixth grade education. The PSDI and PST were not utilized in the present study as they were not viewed as having additive interpretive value in the present empirical context. See Appendix 1 for individual items.

Correlations between similar symptom dimensions on the BSI and the SCL-90 range from .92 to .99 (Cochran & Hale, 1985). Broday and Mason (1991) report the following Cronbach alpha coefficients for the 9 scales: (1) .77 for somatization; (2) .79 for obsessive-compulsive; (3) .85 for interpersonal sensitivity; (4) .88 for depression; (5) .82 for anxiety; (6) .79 for hostility; (7) .70 for phobic anxiety; (8) .76 for paranoid ideation; and (9) .70 for psychoticism. These authors not only indicate that these
coefficients are quite acceptable, but also that they correspond closely to those values reported in the BSI manual.

**Data Analysis**

Information from respondent's demographic profiles was analyzed using descriptive and correlational statistics. Of the 148 non-music students, 70 (47%) indicated that they had previously been to a mental health professional. Comparatively, 54 (38%) out of 141 music students had previously sought mental health treatment. Chi-square analysis yielded significant differences between these groups, $\chi^2 = 4.89$ (df = 1), $p = .02$.

Thirty-three (22%) of the non-music students expressed an unwillingness to seek professional help in the future for difficulties they may experience. Fifty-nine (41%) music students indicated they would not seek professional help. Chi-square analysis yielded significant differences between these groups, $\chi^2 = 15.11$ (df = 1), $p = .0001$.

Multivariate Analysis of Variance (MANOVA) was utilized to determine if there were significant differences between groups for the various scales, including the GSI, on the Brief Symptom Inventory. This analysis yielded no significant differences. Although overall $F = .925$, $p = .011$, when one uses Bonferroni correction, one loses statistical significance for these comparisons. See Table 1 for means and standard deviations for all BSI sub-scales. Multivariate Analysis of Variance (MANOVA) revealed no significant differences between male and female subjects with respect to BSI subscales, $p > .05$. 
Discussion

For the last couple of decades, there has been a growing interest in the psychological make-up of the musician (e.g., Kemp, 1996; Cohen & Kupersmith, 1987; Marchant-Haycox & Wilson, 1992; Young & Hipple, 1996). Not only has there been interest in the personalities of musicians, but also an interest in their utilization of mental health services (e.g., C.L. Barney Dews, 1989). Some researchers have focused specifically on the student musician in an attempt to get a sense of the types of social and emotional difficulties they are experiencing in addition to getting this creative group’s perspective on seeking mental health services (Barney Dews & Williams, 1989; Young & Hipple, 1996; Chesky & Hipple, 1997). In addition to getting a clearer understanding of this group’s level of psychological and emotional functioning, certain researchers have been interested in comparing musicians to a non-musician comparison group in an effort to determine if these groups differ. Kemp (1996) has concluded that this creative group is different from the non-musician with respect to personality traits as well as overall levels of intelligence. He contends that there is a separate “personality” of the musician, which is characterized by higher levels of intelligence, introversion, and pathemia (i.e., sensitivity). A number of other researchers concur that there does appear to be a difference between musicians and non-musicians, and some indicate that musicians often appear more “emotionally unstable,” more “neurotic” and less adjusted (Marchant-Haycox & Wilson, 1992; Wills & Cooper, 1984, Dyce & O’Conner, 1994; and Hamilton, Kella, & Hamilton, 1995). This latter group of adjectives fits well with the literature suggesting a possible link between creativity and psychopathology (e.g., Jamison, 1995). Other researchers, at least with respect to the music student, are providing research
findings indicating that not only are musicians not as pathological as previously portrayed, but they also appear well adjusted in comparison with a non-music student population. For example, Chesky and Hipple (1997) compared undergraduate musicians to non-musicians and concluded that the musician group had fewer social/emotional and alcohol related problems. In fact, they endorsed 29 of 50 items on a problem check-list less frequently than did their non-music student counter-parts. Young, Hipple, and Chesky (in press) looked at possible differences between music-students and non-music students who presented for assistance at a university counseling center and found no differences between music and non-music majors seeking counseling.

Given the questionable validity of some of the instruments used in previous studies comparing music students to non-music students, there remained a need to replicate previous findings with more psychometrically sound instruments. This was the aim of the present study. Using findings from previous literature as a base from which to hypothesize, this researcher expected that music students would report significantly fewer psychological difficulties than would non-music students. While this has been supported in previous studies, the present study, using more psychometrically sound instruments did not find support for this hypothesis. Musicians did not differ significantly from non-musicians with respect to the degree to which they report psychological difficulties. Additionally, there were no differences across classification levels. Freshmen were no different from upper-classmen or graduate students in their pattern of responding to the Brief Symptom Inventory. Both groups BSI scores were not of a magnitude to be considered in the clinical range when compared to the norms for a college population (i.e., T-scores were lower on all subscales, including the GSI – See figure 1). Norms
provided by Cochran and Hale (1985) were used for comparison as they were established specifically with a college population, which more closely resembles the population used for the present study.

Certainly one interpretation of these results is that there are, in fact, no significant differences between these groups. When using a more psychometrically sound instrument, one no longer observes differences between these groups. It is possible however that one of the groups had a tendency to under-report their psychological difficulties. It seems less likely that one or another group would over-report symptoms.

Another possibility is that the comparison being made between these two groups is not an equal one in the present study. Those that make it into the music program, especially the graduate program, are extremely talented; some being among the very best musicians in the world. The non-music programs, except for a few graduate programs, are probably not nearly as difficult to get into. One could argue that there is a unique music major population at this university and if one were to evaluate students at less competitive music schools (i.e., your average or typical music school) one would find them endorsing more symptoms, thus increasing their scores on various scales of the BSI. It appears that this argument would most likely only hold for students at the graduate school level, as it is truly very difficult to gain admittance to the program at this level and even more difficult to be successful in this highly competitive environment. However, the same stringent admission criteria do not apply to the undergraduate program.

Another important consideration is that while the music student population may be similar to non-music student population, this does not necessarily indicate that the professional musician is similar to non-music professionals. In other words, it is possible
that the music students are very different as a group to those who eventually make music
their vocation. Much of the research suggesting that musicians are more “emotionally
unstable” or more “neurotic” has had a participant pool comprised mostly of professional
musicians (e.g., Marchant-Haycox & Wilson, 1992).

Additionally, it is important for the reader to be mindful of the distinction
between some of the previously used instruments and that which was utilized in the
present study. Previous work by Young and Hipple (1996) and Chesky and Hipple
(1997) utilized a problem checklist that was internally developed and not validated. The
same is true of the instrument used by Barney Dews and Wilson (1989). While the
present study utilized a self-report symptom inventory, it has been empirically validated
and is much more comprehensive in nature. Responses to its 53 items yield nine
symptom dimensions as well as global indices indicating overall levels of distress.

One of the limitations of the present study is the lack of random sampling.
Students were asked to volunteer for this study, therefore making it possible that those
that volunteered were not representative of the population from which they were pulled.
A portion of the sample was asked to take the survey with them and to return it at a later
date. It is possible that those who found themselves indorsing a higher percentage of the
items felt less comfortable returning the survey.

As was previously discussed, another potential flaw in the design is the possibility
that the music students at this particular university are not representative of music
students generally. It is plausible that upper-level and graduate students somehow
represent an “elite” group as indicated by either performing well at the undergraduate
level or being admitted to the highly competitive graduate programs. One could make
the claim that it might be difficult to perform in such a manner that would allow one to be competitive in this environment if one were experiencing more serious psychological difficulties. A difficulty with this argument is that this researcher did not find a difference in the endorsement frequency of symptoms between freshman/sophomore and upper level or graduate music students. If there were a self-selection of more psychologically healthy students staying in the program longer, one might expect to find higher rates of emotional and psychological difficulty at the lower levels.

Given the contention that the musicians in the present sample might represent an "elite" group of musicians, it is recommended that future research sample students from a variety of music schools. One could look at students from top music programs in addition to those from intermediate and less competitive music programs. If there are no differences between these schools and there continues to be little if any difference between the musicians and non-musicians from these schools, one can more confidently state, with respect to self-reported psychological difficulties, music students are similar to non-music students. A study such as this would truly be comprehensive if researchers compared this cross-section of music & non-music students to an equally representative cross-section of musician and non-musician professionals (i.e., non-student populations). This would allow for a more definitive empirical stance with respect to possible differences between the student and professional musician.

While the present study included many different types of musicians (i.e., classical guitar, voice, saxophone, violin, etc) and many types of non-musicians (i.e., those majoring in English, psychology, counselor education, business, computer science, etc.), samples from each group were not large enough to allow for statistical comparison of
these groups. Future research with a large enough sample (i.e., approximately 100 subjects in each group), that would allow for a meaningful statistical comparison, would be beneficial. Additionally, it is plausible that statistical power did not allow for a meaningful statistical comparison between males and females. This could be significant considering the differential gender distribution in the two groups. However, the BSI norm groups for non-patient adolescent (males, N = 1,601; females, N = 807) and adult populations (males, N = 361; females, N = 358) did not reveal significant gender differences on any of the subscales. Additionally, there were not significant gender differences found with the college student sample. However, in future research, it would be important to include equal numbers of males and females in future research.

Barney Dews and Williams (1989) found that music students were reluctant to seek professional counseling, indicating that professional help would be sought only after seeking assistance from friends, teachers, and/or family members. The present study supports these findings. Music students were significantly less likely to seek professional help for psychological issues. This being the trend, it is recommended that educational outreach programs be implemented within these schools of music. Many of the musicians appeared to be operating from the philosophy of self-control and self-care unless their situation becomes unbearable. They tended to believe that they should be able to take of any psychological/emotional problems they might experience by themselves. Efforts to educate this population about the reasons for which people seek counseling might decrease this notion that only the highly troubled individual is in need of counseling. Although a smaller percentage of music students stated that they had previously participated in counseling, it may work towards decreasing the stigma
associated with seeking help if music students as a group were aware of the sizeable percentage of their colleagues that are presently participating, or have in the past participated in the counseling process.

The literature seems clear that the music population as a whole is a highly stressed group that would benefit greatly from intervention programs developed by mental health professionals, particularly those aimed at teaching stress management techniques. Issues such as sleep hygiene, nutrition, relaxation, and recognizing high stress levels would be incredibly beneficial for this creative student population. Music students would likely benefit more if music educators were also educated about the effects that these variables have on musicians' physical and psychological well-being, which in turn affects their musical performance. Similar sentiments are echoed in the words of Linda Hamilton (1997) who states: “The emotional costs of a vocation in the performing arts can have a significant impact on the lives of dancers, musicians, actors, and singers. Can students be better prepared to cope with the realities of this career? I believe that the answer is a resounding “yes” if we develop programs that use psychology as a guide in artistic development” (Hamilton, 1997, p. 70).

While the present study has potential methodological flaws, it nonetheless represents a step forward for the research base in this area. It is the first study to compare the psychological functioning of music and non-music students with a psychometrically sound measure. Additionally, the study lends support to previous findings indicating that musicians may be less willing to seek professional help for emotional and psychological difficulties. It is hoped that a clearer understanding of this creative group will lead to more effective intervention programs aimed at reducing levels of stress and improve
coping abilities for those who chose to study and work in this highly competitive environment.
APPENDIX A

BRIEF SYMPTOM INVENTORY ITEMS
Brief Symptom Inventory Items

1. Nervousness or shakiness inside
2. Faintness or dizziness
3. The idea that someone else can control your thoughts
4. Feeling others are to blame for most of your troubles
5. Trouble remembering things
6. Feeling easily annoyed or irritated
7. Pains in heart or chest
8. Feeling afraid in open spaces
9. Thoughts of ending your life
10. Feeling that most people cannot be trusted
11. Suddenly scared for no reason
12. Temper outbursts that you could not control
13. Feeling lonely even when you are with people
14. Feeling blocked in getting things done
15. Feeling lonely
16. Feeling blue
17. Feeling no interest in things
18. Feeling fearful
19. Your feelings being easily hurt
20. Feeling that people are unfriendly or dislike you
21. Feeling inferior to others
22. Nausea or upset stomach
23. Feeling that you are watched or talked about
24. Having to check and double check what you do
25. Difficulty making decisions
26. Feeling afraid to travel on buses, subways or trains
27. Trouble getting your breath
28. Hot or cold spells
29. Having to avoid certain things, places or activities because they frighten you
30. Your mind going blank
31. Numbness or tingling in parts of your body
32. The idea that you should be punished for your sins
33. Feeling hopeless about the future
34. Trouble concentrating
35. Feeling weak in parts of your body
36. Feeling tense or keyed up
37. Having urges to beat, injure or harm someone
38. Having urges to break or smash things
39. Feeling very self-conscious with others
40. Feeling uneasy in crowds
41. Never feeling close to another person
42. Spells of terror or panic
43. Getting into frequent arguments
44. Feeling nervous when you are alone
45. Others not giving you proper credit for your achievements
46. Feeling so restless you couldn't still
47. Feelings of worthlessness
48. Feeling that people will take advantage of you if you let them
49. The idea that something is wrong with your mind

Additional Items (Not Subsumed Under Primary Symptom Dimensions)

50. Poor appetite
51. Trouble falling asleep
52. Thoughts of death or dying
53. Feelings of guilt
APPENDIX B

DEMOGRAPHIC INFORMATION
Demographic Information (Music Majors)

1. Age _____

2. Marital Status _____

3. Ethnic Origin: African American_____ American Indian/Alaskan Native_____
Asian_____ Caucasian_____ Hispanic_____ Other_____ 

4. How many times per month are you paid for musical performances (i.e., gigs):
   0_____ 1-5_____ 6-10_____ 11-15_____ 16+_____ 

5. Are you currently part of an active band? Yes_____ No_____ 

6. What is your primary instrument? ________________________________ 

7. Have you ever participated in counseling? Yes_____ No_____ 

8. If "Yes" to the above question, what was the reason for counseling?______________________________
   ________________________________

9. If you were experiencing psychological difficulties (e.g., depression, anxiety, stage fright), to whom would you turn for assistance?______________________________

10. Would you ever seek professional counseling for the above mentioned difficulties?
    Yes_____ No_____ 

11. If "No" to the above question, please explain?______________________________
    ________________________________

12. How honest were you able to be in answering the questions in this study?
    Not at all honest _____ Completely honest 10
    1  2  3  4  5  6  7  8  9

THANK YOU FOR YOUR PARTICIPATION IN THIS STUDY!
Demographic Information (Non-Music Majors)

1. Age _____

2. Marital Status _____

3. Ethnic Origin: African American_____ American Indian/Alaskan Native_____ Asian_____ Caucasian_____ Hispanic_____ Other_____

4. Are you currently part of an active band or do you consider yourself a musician? Yes____ No____

5. Have you ever participated in counseling? Yes____ No____

6. If "Yes" to the above question, what was the reason for counseling?______________

7. If you were experiencing psychological difficulties (e.g., depression, anxiety, stage fright), to whom would you turn for assistance?______________

8. Would you ever seek professional counseling for the above mentioned difficulties? Yes____ No____

9. If "No" to the above question, please explain?______________

10. How honest were you able to be in answering the questions in this study?

Not at all honest 1 2 3 4 5 6 7 8 9 10 Completely honest

THANK YOU FOR YOUR PARTICIPATION IN THIS STUDY
Table 1

Means/Standard Deviations - BSI Subscales

<table>
<thead>
<tr>
<th>BSI Subscale</th>
<th>Group</th>
<th>Level</th>
<th>Mean</th>
<th>Standard Dev.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Somatization</strong></td>
<td>Music</td>
<td>Fresh./ Soph.</td>
<td>48.47</td>
<td>9.71</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Junior/ Senior</td>
<td>52.52</td>
<td>7.89</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Grad. Student</td>
<td>54.94</td>
<td>10.00</td>
</tr>
<tr>
<td></td>
<td>Non-Music</td>
<td>Fresh./ Soph.</td>
<td>50.89</td>
<td>10.81</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Junior/ Senior</td>
<td>52.34</td>
<td>11.37</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Grad. Student</td>
<td>52.66</td>
<td>9.11</td>
</tr>
<tr>
<td><strong>Obsessive – Compulsive</strong></td>
<td>Music</td>
<td>Fresh./ Soph.</td>
<td>55.89</td>
<td>9.22</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Junior/ Senior</td>
<td>55.50</td>
<td>10.82</td>
</tr>
<tr>
<td></td>
<td></td>
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Figure 1. Mean T-scores for norm groups and present sample.
REFERENCES


Performing Artists, June, 61-68.


