The Use of Music as Self-Care for Non-Music Major Undergraduate College Students:

Observations of Stress Management and Music Use

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Abstract

This paper explores the use of music as self-care for non-music major undergraduate college students from research conducted through electronic survey and literature review. Information surrounding students' identification of stressors and stress effects in their personal lives give insight into further educational considerations regarding therapeutic music usage and education of self-care techniques. Students identified academic performance as a large stressor, mental health as the most frequently effected personal domain, and a positive average of situational changes when music was involved. Overall, there was a strong correlation found between music usage and stress management, as well as a strong correlation between music usage and increased positive situational experience.

Keywords: music, self-care, stress, mental health, undergraduate student performance

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There are many facets to understanding mental health as a whole. A contributing factor in general mental health and wellness is stress influence and management. In general, stress can contribute to difficulty concentrating, increased worrying, instances of anxiety or depression, changes in eating and sleeping habits, and increased agitation (Campus Mind Works, 2016). The National Institute of Mental Health states that mental health issues affect tens of millions of people each year, with only half of these people receiving treatment (National Institute of Mental Health, 2018). Although stress can be a motivating factor, it can also be a demotivating factor.

Across the country, Americans report similar stress experiences, including money constraints and social issues (family, friends, relationships, etc.). This stress impacts both physical and mental health. One population more greatly susceptible to these stressors are undergraduate college students. Students are affected by these mental health issues because of the challenging situations they are subject to in both their personal lives and educational settings. According to Mental Health America (2018), youth mental health is worsening and younger generations are continuing to struggle with managing stress. Rates of severe depression increased from 5.9% in 2012 to 8.2% in 2015. Even with severe depression, 76% of youth are left with no or insufficient treatment (Mental Health America, 2018). The implications of these effects are vast as students move onto higher education institutions. Colleges and universities are now faced with the necessity of providing education of self-care strategies and support services on campuses. Only by continuing to provide support services and gaining insight into students'

current management of stress using creative arts can institutions ensure their students' success and independence.

More than others, undergraduate students experience the competition and stress of higher education. Some students are more naturally well-equipped to handle these stressors than others. According to Anthony Ryle, there are genetic factors to take into consideration when looking at the ways students handle stress, in addition to the demands of the institution and the format of the learning environment (1969, p. 54). He goes on to ask of the environment, "What demands does it make, what conditions does it set for survival, what supports does it provide and how flexible or rigid, how consistent or ambiguous are the attitudes of [the institution's] teachers?" (Ryle, 1969, p. 55). This is a factor to consider when looking at how students are able to utilize the services presented to them in the learning environment and their learning about how to best help themselves in the learning environment.

Students, though, are not entirely helpless in these situations. As all people are, undergraduate students are capable of learning coping techniques and personalizing them to their specific needs to engage in self-care. Self-care techniques are specific to the individual and the options are vast. More specifically, the use of music for self-care can not only effect your mood but it can alter your perception of a situation, which can be used to prevent burnout and strengthen productivity, according to the University of Groningen in the Netherlands (2011). For most undergraduate students in the health care field, there is some level of education about self-care and awareness of burnout. For majors like creative arts therapies, nursing, and pre-doctoral programs, there is also education on preventative measures individuals can take. Not all undergraduate students undergo this training and in fact, for most students, there are no formal classes on stress management or how to care for ones' own mental health and wellbeing.

In this study, the researcher specifically looks at non-music majors and the prevalence of music for self-care. Given non-music major students' lack of therapeutic music education, there is valuable information to be gathered about the natural instinct of students to utilize music for their needs. The use of music for academic pursuits comes with its own stressors but music in itself is a self-care treatment when used intentionally, which for many, is incorporated into the curriculum for music majors (specifically music therapy, education, and general music studies).

Implications of Student Stress

This study seeks to discover the non-music major undergraduate students' usage of music as self-care in everyday life. Stress can manifest into or exacerbate mental illness symptoms and prevalence. People with mental health disorders are more likely to notice symptoms reemerging during stressful times (Campus Mind Works, 2016). Mental health issues have multiple factors including external and internal triggers. In some cases, external situations like getting poor grades or breaking up with a significant other can be triggers for mental health lapses. In other situations, internal triggers like placing high expectations on yourself can be triggers to moments of mental health lapses (Campus Mind Works, 2016). These consequences can reach far beyond the educational environment but can be pervasive in the personal lives of students during school or post-grad.

Stress can cause poor student performance in the areas of homework and testing, field work, and attending class. This is related to the problem area because students are subject to these stressors in the educational environment. Academic performance holds the unique role of being both the stressor (pressure to perform well) and the implication of unmanaged stress (poor

academic performance). Consequences of these factors can be students dropping out of college, a fault in grades, and maladaptive behaviors (WebMD, 2018).

Stress can manifest into physical health repercussions. When subject to stress, human bodies experience the fight-or-flight response sequence. Some physical health concerns for students facing stressful situations can be cardiovascular problems and the decreased ability to fight off disease. (Thompson, 2015) Because of these implications, students can face long term physical issues based on their stressful encounters in their undergraduate years. In addition, students may face immediate consequences that effect their physical capability and ability to engage in everyday activities. (American Psychological Association, 2015)

Overall, Stress can be a motivating factor but when faced with minimal self-care, can be detrimental to students. An overload of stress can cause lapses in mental health, decreased performance educationally, and increased instances of physical illness.

Background and Need

Mental Health. Music listening can be beneficial in decreasing the internal triggers through dopamine release, relaxation, and connection with others. The response to music is physiological and psychological and expressed silently in glances, tears, and aurally with the occasional sigh (Botstein, 1998, p. 429). It can be beneficial to external triggers through its ability to aid in processing experiences.

Physical Health. Music listening can be beneficial to physical health through physical pain relief and dopamine release. (Thompson, 2015) In social experiences through music, many people are able to find greater sense of physical belonging in a group. It has been shown music can be beneficial to immune health overall. (Thompson, 2015)

Academic Performance. Music can be beneficial to the otherwise difficult and stressful educational experience by providing motivation, relaxation, and social exposure for individuals. Music provides a way to create friendships with others that in turn, results in increased educational performance through a series of personal gains. In a study from Budapest, Hungary, researchers found that listening to classical music before going to sleep is an effective intervention in reducing sleeping problems. (Harmat, 2008) This is one example of music's use as a relaxation agent and the implications on academic performance.

Purpose of the Study

The purpose of this study was to explore non-music major undergraduate students' usage of music as self-care at various universities. Many students have difficulty managing their stress at the undergraduate level (American Psychological Association, 2015). If these students are not given appropriate resources or are not educated appropriately on how to utilize self-care strategies, stress can manifest into mental health conditions or adverse educational consequences. To explore this topic in greater detail, the researcher used an electronic questionnaire for data collection. This strategy gives students the opportunity to disclose their usage of music to their comfort level. The sample size used with the first round of surveying consisted of 13 participants from various campuses. The full scale study used information from 50 respondents as described later in the text. These participants filled out a multi-question survey and short answer section.

The purpose of this study is to recognize the many ways students utilize self-care strategies to deal with stress, with a specific focus on music usage. By learning how students use music as self-care naturally, techniques for greater education on therapeutic music usage can be found. The study has impact on the resources presented to students at the collegiate level at

stressful periods of the semester such as midterm and finals periods. The findings from this study are significant because of the implications in other fields. Specifically, these findings are significant in the fields of mental health, health care, music therapy, and education. These findings will also present greater insight into students' coping abilities and the psychological necessities of students at the undergraduate college level. This provides the opportunity to adjust to be more student-centered in educational environments and on educational platforms overall.

Research Questions

- How do non-music major students utilize self-care?
- In what ways do students use music in their everyday lives?
- How can educators evolve with the changing needs of a student population?
- In what way does stress effect students differently?
- Are students more likely to identify stress effecting their mental health, physical health, or academic performance?

Definitions

Throughout the literature review, research, and study, the following terms will be reviewed:

- **Self-Care**: A necessary human regulatory function which is under individual control, deliberate and self-initiated.
- **Stress**: A state of mental or emotional strain or tension resulting from adverse or very demanding circumstances.
- **Intentional Music Listening:** The use of specifically chosen music for a specific purpose(s).
- **Burnout:** Exhaustion of physical or emotional strength or motivation usually as a result of prolonged stress or frustration.

- **SF-12 HRQOL:** Short form (12 question) health related quality of life survey.
- **Z-Test:** A statistical test to test hypotheses about the mean of a population based on a single sample or about the difference between the means of two populations.

Limitations. There are many limitations to this study. The research design is limited overall in many ways. Only participants who have access within the social media outreach of the researcher were given the option to participate. Because the study was done with a model of voluntarily participation, the likelihood of individuals being honest in their responses is higher than otherwise. The time and resources are limited because this study is being held on a schedule subject to end at the end of the Anna Maria College spring semester, May 2018. Because of this limitation, the research is foundational and correlation-based. The study was conducted on a very small scale, with ideal conditions being a greater number of participants and greater diversity of respondents. The research topic and study would benefit from a longitudinal study of multiple university students.

Ethical Considerations. The ethical considerations taken during the implementation of this study included full disclosure to participants, maintenance of anonymity, and informed consent. The survey was on a voluntary participation basis and initial statement of informed consent:

> *This survey is being conducted for HON 490 Honors Senior Seminar for a study on the use of music as self-care for non-music major undergraduate college students. Any identifying information is confidential and used specifically for accuracy insurance and demographic insight. Any questions, comments, or concerns can be directed to Bryanna Tobin at BCTobin@amcats.edu. Thank you for your participation!*

This informed consent ensured the participants awareness that their responses are being used for the data collection in this study. All personal questions with defining factors were indicated as optional but recommended, including name and gender. All efforts to maintain anonymity were upheld.

Literature Review

Undergraduate students are subject to stress in various areas of their lives. The use of music for self-care can help diminish the effects of these stressors and this research study aims to gain more information on the use of self-care strategies, specifically, music listening, to gain insight into correlation and causation between stress and music listening for self-care in non-music major students. Stress impacts undergraduate students in three primary ways: mental health, academic performance, and physical health. Stress can manifest itself into various forms of mental illness or may illicit a greater or more intense episode of mental health. In addition to this, stress can decrease students' performance academically. Physically, students may be suffering without realizing it, with stress impacting the body in a variety of ways.

Mental Health Effects and Implications

In a study published through the College Student Journal, an academic journal presenting original investigations and theoretical papers on issues affecting college students, a study was conducted to examine the association between student-life stress and health related quality of life. The participants included students within the doctor of pharmacy program in an Alabama university. The sample population included 166 students in the first three years of the Doctor of Pharmacy curriculum studies. The results stated that Student-Life Stress Inventory scores were significantly negatively correlated to mental component SF-12 HRQOL scores for the overall sample, gender and within each professional year. However, z-tests indicated that the magnitude of the correlations did not vary significantly by gender or year in the curriculum. The conclusions of this study recognizes there are strategies needed to reduce Student-life Stress and improve the mental component of HRQOL.

Coping styles and its association with sources of stress in undergraduate medical students, published in the Indian Journal of Psychological Medicine, strives to find the association between coping styles and stress in undergraduate medical students (Cherkil, 2013). The sample included a medical college in Central Kerala, a region in southern india. A cross-sectional study design was adopted. The intervention/issue discussed disseminated the two pervasive factors that have been identified in medical courses to underlie mental health are stress and different coping styles adopted to combat stress. The materials used included the Source and Severity of Stress Scale, Medical Student Version, was used to assess the source and nature of stress. Brief Cope was used to find out the coping styles adopted. Chi-square analysis was used to find the association between coping styles and stress domains and with the overall stress score (Cherkil, 2013). There is a significant positive association between overall stress score and coping styles of 'Negative cope', 'Blame', and 'Humor'. 'Positive cope' and 'Religion' has significant positive association with 'Academics' and 'Self Expectations'. 'Blame' has very high significant positive association with 'Academics', 'Self expectation', and 'Relationships'. Very high significant positive association is further found between 'Humor' and 'Self expectations', 'Living conditions', and 'Health and Value conflict'. 'Substance Use' is positively associated in high significance to 'Health and Value conflict'. The outcome of the study emphasizes the need for stress management techniques in the medical school (Cherkil, 2013).

In an article published in the Journal of Religion and Health, Evanthia Sakellari explores religiosity, self-esteem, stress, and depression among students of a Cypriot University, the purpose is to identify and explore the relationship between all of these factors. The sample population includes nursing students, social work students, and early-education students of Cypriot University on the island of Cyprus. The data was collected using four questionnaires.

The results indicate a significant positive association between depression and stress. Greater levels of self-esteem were found to be associated with lower depression levels in correlation analysis, while strength of Religious and spiritual beliefs was correlated negatively with depression. The results of the current study highlight the need for early intervention in order to promote students mental well-being (Sakellari, 2018).

Decreased Student Performance

Stress and Academic Performance, an article published from a technology university in Malaysia, discusses stress and academic performance using empirical evidence from university students. The researcher strives to investigate the relationship between stress factors, perceived stress and academic performance among 154 science students in a Malaysian public institution of higher education. This population is very specific and has had minimal research attention. The results indicate that the students experienced stress but at a moderate level. There is a statistical significant difference between the level of perceived stress at the beginning and middle of the semester but not statistically significant between the beginning and middle and end of the semester (Rafidah, 2009). The correlation was not statistically significant between the level of perceived stress at the beginning and middle of the semester but statistically significant between the middle and end of the semester regarding academic performance of students. (Rafidah, 2009)

In a study from the Journal of Educational Psychology, College Students' Time Management: Correlations with Academic Performance and Stress (1990), the researcher strives to look at the correlation between academic performance and stress. Many college students may find the academic experience very stressful and one potential coping strategy frequently offered by university counseling services is time management technique education (Macan, 1990). The

sample size was one hundred and sixty five students. The issue the study strives to address is the student experience of very stressful situations. One hundred and sixty-five students completed a questionnaire assessing their time management behaviors and attitudes, stress, and self-perceptions of performance and grade point average. There were two major findings that evolved from this data collection. The Time Management Behavior Scale consists of 4 relatively independent factors; the most predictive was Perceived Control of Time. Students who perceived control of their time reported significantly greater evaluations of their performance, greater work and life satisfaction, less role ambiguity, less role overload, and fewer job-induced and somatic tensions (Macan, 1990). In conclusion, the findings were consistent with theory and advice on time management but indicate the dynamics of time management are more complex than previously believed.

The Examination of the Relationship Among Academic Stress, Coping, Motivation and Performance in College, an article published through Research in Higher Education, the researcher strives to examine the extent to which college students' academic coping style and motivation mediate their academic stress and performance (Struthers, 2000). The study used a structural equation analysis method. The results demonstrated the relationship between college students' academic stress and course grade was influence by problem-focused coping and motivation but not emotion-focused coping. Greater academic stress co-varied with lower course grades however, students who engaged in problem-focused coping were more likely to be motivated and perform better than students who engaged in emotion-focused coping. Strategies for promoting more effective coping in college students are discussed. Empirical evidence suggests that a domain-specific coping style may play an important role in the way students manage stressful academic events and perform at college (Struthers, 2000).

Physical Health Repercussions

The Impact of Mental Stress on the Immune Response aims to explore the impact of mental stress on the immune response (Ballieux, 1991). Psychosocial factors can influence immune functions: the brain intermediates between the outside world and the inside of the body. The functional interaction between the central nervous system and the immune system is effected by 2 different pathways: the nervous "wiring system" innervating lymphoid tissues and the "soluble connection" via the neuroendocrine system (Ballieux, 1991). The paper reviews data from the literature regarding changes in susceptibility to infections due to stressful conditions. Emphasis is given to information regarding infection of the oral cavity and the upper respiratory tract.

Furthermore, in a study from the 4th European Conference of the International Federation for Medical and Biological Engineering titled the Influence of Mental Stress on Heart Rate Vulnerability, the researcher addresses the problem of stress and the measurement of the effects of stress (Taelman, 2009). Stress is a huge problem in today's society. Being able to measure stress, therefore, may help to address this problem. Although stress has a psychological origin, it affects several physiological processes in the human body: increased muscle tension in the neck, change in concentration of several hormones and a change in heart rate (HR) and heart rate variability (HRV). The brain innervates the heart by means of stimuli via the Autonomic Nervous System (ANS), which is divided into sympathetic and parasympathetic branches. The sympathetic activity leads to an increase in HR (e.g. during sports exercise), while parasympathetic activity induces a lower HR (e.g. during sleep). The two circuits are constantly interacting and this interaction is reflected in HRV. HRV, therefore, provides a measure to express the activity of the ANS, and may consequently provide a measure for stress (Taelman,

2009). We therefore explored measures of HR and HRV with an imposed stressful situation. We recorded changes in HR and HRV in a group of 28 subjects at rest, and with a mental stressor. The results suggest that HR and HRV change with a mental task. HR and HRV recordings may have the potential, therefore, to measure stress levels and guide preventive measures to reduce stress related illnesses.

Overall, undergraduate students are at greater risk for the implications of stress without viable management solutions. The use of music for self-care can help diminish the effects of these stressors. With a focus on the mental health, physical health, and academic performance of students, researchers can continue to look at appropriate coping mechanisms with an emphasis on music for self-care.

Methods

In this study, the ways in which undergraduate non-music major students use music for self-care in their everyday lives is being observed. This observation of physical, mental, and academic stress, is to gain insight into how students can better manage stress and use music for self-care methods. This data collection looks at the ways in which students react when using music for specific situations, allows students to identify their stressors, the implications of those stressors, and the frequency and purpose of music listening instances.

Sample Study

The sample study was conducted one month in advance of the anticipated full scale survey with the purpose of identifying any inconsistencies in questions and being made aware the effectiveness of the intended data collection. This study was conducted electronically to a broad network of undergraduate college students in the New England area. When marketed, the request for participants specifically identified current college students. The participants identified in the sample study were picked on a voluntary basis. There were a total of 18 participants, 17 female and 1 male. Ages ranged from 19 to 28, 3 participants were 19, 2 participants were 20, 9 participants were 21, 1 participant was 22, 1 was 28, and one was 27. The graduation years varied from Class of 2018 (9), Class of 2019 (1), Class of 2020 (3), Class of 2021 (3), Class of 2012 (1), and one participant did not finish their collegiate education. Of the 18 participants, 4 people studied a music-related field (Music Therapy, Music Education, or General Music) and 14 participants studied a non-music degree.

The materials necessary to gather this data include an electronic questionnaire and a means for distribution on various social media platforms (a computer, tablet, phone, etc.). The

sample questionnaire consisted of 21 questions divided into four sections: About You, Self-Care, Relationship to Music, Use of Music. About You consisted of six questions to identify and gain information on demographics including name, age, gender, college graduation year, major area of study, and whether students consider themselves to be musicians. Using the researcher's network of connections, a post was made asking current undergraduate students to participate. The post was shared by one connection to a separate network of individuals with moderate overlap. To analyze the data, an Excel document was created to analyze the responses of each participant. This data was comprised into various charts for further analysis of the individuals' use of music. Moving forward, it was recognized that these questions were not entirely appropriate to follow the study, but instead provided supplemental information about each person's use of music. For the full scale study, students will be asked questions more applicable to music, stress, and the hypothesized correlation between the two.

Full Scale Study

Participants. The study was conducted electronically. The broad setting is undergraduate college students in the United States. The majority of participants attended a college or university on the east coast of the United States, although there were some outliers. The represented schools include: Anna Maria College, Brown University, Central Connecticut State University, Clark University, Coastal Carolina University, Community College of Rhode Island, Eastern Connecticut State University, Hofstra University, Iona College, Killington School of Resort Management, Naugatuck Valley Community College, New York University, Pratt Institute, Rhode Island College, Simmons College, Southern New Hampshire University, Stetson University, Stonehill College, Texas Tech University, University of Connecticut, University of

Massachusetts Amherst, University of Maine, University of Rhode Island, Utah State University, and Worcester Polytechnic Institute (Table 1). The request for participants specifically identified current undergraduate college students enrolled at a college or university. Although the focus of this study is on non-music majors, the call for participants did not specify further than the status of students in order to ensure un-bias responses. Information was gathered from 58 individuals whom voluntarily responded to the survey. Of these 58 responses, 50 were non-music major students, thus valid data (Table 2). The information discussed throughout this experimental summary is focused upon this usable data.

Measurement Instruments. Given the foundational nature of this study, the focus is data collection and correlation recognition. With this in mind, the independent variable identified is use of music and the dependent variable is level of stress. Qualitative data was gathered through open-ended response within the questionnaire asking broadly how participants use music in their lives. Quantitative data was gathered through multiple choice questions and scaled answer tools. The materials necessary to gather this data include an electronic questionnaire and a means for distribution on various social media platforms (a computer, tablet, phone, etc.). The full scale study questionnaire consisted of 12 questions: 6 regarding demographics (Age, Gender, College, Graduation Year, Major, Resident Status), 1 question regarding the source of stress, 4 questions regarding the effects of stress (Broadly, While Driving, While Relaxing, While Studying), and 1 open-ended question regarding frequency and purpose of music listening (See Appendix).

Procedure & Analysis. The primary data collection tool used was an electronic questionnaire formatted on the Google Forms platform. Questions include open responses, multiple choice, and scaled answers (on a 1-5 point slider). The validity and reliability of this

tool is consistent. This form does not monitor multiple responses and there is room for user bias, user error, and dishonesty. Multiple choice questions were met with "Other" options to ensure participants had room to be specific or different from provided answers if necessary. Considerations were made to supplement questionnaire responses with 1:1 interviews and a small focus group, but given data gathered and experimental time constraints, there was no identified need for extended data collection. A direct link was shared on Facebook and Twitter two times over a two week measurement period. Using the researcher's personal and professional network, a post was made asking current students to participate. This post was shared on Twitter by third party individuals and was not shared on Facebook aside from the original two posts. To analyze the data, an Excel document was created to analyze responses of each participant. This data was comprised into various charts for further analysis of students' use of music. The questions included in the full scale study were found to be applicable to the research question and focused enough to provide a foundation for future research questions and recognize correlations between demographic factors, stress responses, and the use of music in students' everyday lives.

Results

All data gathered and analyzed is based on 50 responses identified as the most appropriate to the research question, looking at the use of non-music majors' use of music as a form of self-care. The results are based on the data gathered using the presented questionnaire and have been synthesized to qualitative and quantitative data.

The age of students varied from 18 years to 23 years,: 18 (4), 19 (2), 20 (5), 21 (19), 22 (17), 23 (3). The mean, median and mode have been identified as 21 years (Figure 1). Eighty percent (80%) of participants identify as female, while twenty percent (20%) identify as male (Figure 2). Graduation years of participants varied from 2012 to 3020: 2012 (1), 2017 (2), 2018 (31), 2019 (5), 2020 (4), 2021 (5), 2032 (1), 3020 (1). (Table 2) The mean graduation year was 2018 and significant outliers of 2012, 2032 and 3020 are assumed to be user error responses. There are a variety of colleges represented throughout this data as stated previously. The majority of responses are from students at Anna Maria College (24) with 26 responses from students at alternate universities. Seventy percent (70%) of respondents identified as resident students, while thirty percent (30%) identified as commuter students (Figure 4). A resident student is defined as a student who is living on campus of their university while a commuting student is defined as a student who commutes from a location off campus.

Respondents identified multiple ways in which stress effects them personally. Respondents were asked to check all that apply from a field of 4 categories (Academic Performance, Physical Effects, Mental Effects, Emotional Effects) with an option of "Other". One responded identified a fourth category: Functional Ability. The results were as follows:

Academic Effects (25 respondents), Physical Effects (37 respondents), Mental Effects (46 respondents), Emotional Effects (38 respondents), Functional Ability (1 respondent). The most common response was Mental Effects (Figure 6). When asked to identify sources of stress, respondents were provided with 14 options: Roommate stress, Distance from home, Money, Job, Grades, Workload, Family, Friends, Health, Sports, Tests/Exams/Papers, Relationships, Time Management, and Mental Health. Of these options, respondents on average choose 7.16 of the 14 options.

The next portion of the questionnaire provided situations and requested participants to identify the negative or positive effects of music usage in each situation. Participants were presented with a scale of 0-5. When asked "When listening to music while driving (or using transportation of any kind), how is your mood effected?" on a scale from 0-5 (0 being negatively affected, 5 being positively affected), all participants responded with a neutral to positively affected number. It was recorded as follows: 3 (3), 4 (15), 5 (32). The mean was found to be 4.58, while the median and mode were 5. (Figure 7) When asked, "When listening to music to fall asleep, how is your relaxation or sleep effected?" on a scale from 0-5 (0 being negatively affected, 5 being positive affected), participants responded mostly neutral (3). It is recorded as follows: 1 (3), 2 (6), 3 (20), 4 (11), 5 (10). The mean was found to be 3.38, while the median and mode were both 3. (Figure 8) When asked, "When listening to music while studying, do you find your studying to be more or less effective?" on a scale from 0-5 (0 being less effective, 5 being more effective), participants responded in a variety of ways. It is recorded as follows: 1 (4), 2 (9), 3 (10), 4 (17), 5 (10). The mean was found to be 3.4, the mode was found to be 4, and the median was found to be 4 (Figure 9).

The open response portion of the questionnaire was analyzed by separating responses by theme and words mentioned. These responses were divided into two areas: frequency of music listening and purpose of music listening. The frequency of music listening was consistent across the participants, with a majority of participants identifying their music listening frequency as "Every Day" (19), "Often" (5), "All the time" (4), or "Consistently" (4) (Table 2). Of the total 44 responses regarding frequency, individuals fell into categories of All the Time (defined by consistent listening throughout the day), Every Day (defined by at least 1 instance of listening per day), Often (defined by one instance of listening or less), or Situational (defined by indication of specific instances of listening). The purpose of music listening section responses was divided into 9 categories: All Situations, Mood Improvement, Focus, Reflection, Social Use, Recreation, and Passive Listening. The categories were expanded into subcategories based on the key words indicated in the responses (Table 3). There were 91 answers recorded with an average of 1.82 responses on average by respondent.

Discussion

Undergraduate non-music major students use music for self-care in various ways. We observe these uses in the data collection. Looking at the implications of physical, mental, and academic stress, we're hoping to gain insight into how students can better cope or use music for self-care methods. This data collection looks at the ways in which students react when using music for specific situations, ways students identify their stressors and the implications of those stressors, as well as the frequency and purpose of music listening instances.

Students identified the effects of stress on their mental health more than any other presented category (physical health, mental health, academic performance). Students chose academics as the last of the four presented options. This may be because of the interrelation between mental health, physical health, emotional health, and academics. If mental health is the most greatly affected by stressors, students are more likely to struggle with academics unless they are utilizing self-care to appropriately deal with these mental effects.

Students found that listening to music while driving, presented as a *physical* situation, led to a more effective, positive driving experience for 94% of respondents (indicating 4+ rating on the 0-5 scale). Students found that listening to music while relaxing or preparing to sleep, presented as a *mental* situation, led to a more effective sleeping or relaxing experience, with 82% of respondents indicating scores of 3 or higher on a 0-5 scale. Students found that listening to music while studying was more effective for 54% of respondents, while 26% of respondents found it to be less effective, and 20% of respondents were neutral about the presented situation.

The data collected shows the consistent use of music by non-music major students. In looking at the qualitative data gathered, a majority of students identified music as a way to improve their mood (19 responses) with mentions of using music to “feel good”, “improve mood”, “emotionally release”, “for stress relief” or to “increase enjoyment.” Students also identified music usage for task-oriented situations such as “homework” or “studying” (5, respectively), “relaxation” (7), “driving” (8), and “working out” (5). This may suggest the previous discussion point: students find music to be more effective for physically-based tasks (as addressed in *Situational Use of Music*). The findings may imply that students are able to handle their stressors more effectively through the use of music as self-care in their everyday lives. Of course, this is dependent on individual bases.

Limitations and Future Considerations

This study was limited because it was presented to a specific group of people based on the researcher’s social network outreach. Given the time limits of the study, the researcher was unable to conduct 1:1 interviews and focus groups. The consequences of this limitation included a lack of depth in responses and lack of specific information or situation awareness. The data needed to be gathered in a more concise and succinct way. As the study progressed, difficulty was found in qualifying the data gathered in open ended responses. If I was to do this study again, I would look at a greater longitudinal study, using this data collection as a starting point. Given the nature of the study being about data collection and foundational bases for future research, the correlations found present opportunity for future experimental expansion.

This research can be exponentially expanded through experimentation and data collection. This study is presented as foundational on the topics of functional music usage, self-

care techniques, and undergraduate stress identification. These findings are essential for both longitudinal and short-term future research. Moving forward, researchers can look more specifically at the ways in which music effects students physically, mentally and academically. Further research can be conducted relating to music usage and the dynamic elements surrounding sound. It is important to take this information as a place of curiosity. This study can also be continued over a greater number of students and specific to different areas in the United States or globally. Students across the nation are learning in different ways. It would be interesting to observe different types of learners and if there is a correlation between different kinds of learners and the effectiveness of music in different situations.

Conclusions

This study strengthens the research surrounding the use of music as a stress management mechanism. Without identifying it as such, students use music for self-care in the midst of their everyday routine. These students are aware of the effects of music yet do not identify their listening as intentional or as a self-care technique. There were many take-away points from this data collection. Given the situations presented, students find that using music for more physically-focused and mentally-focused tasks creates a more positive experience, while using music for academically-focused tasks present a variety of individualized responses, with a neutral response by the majority. The study also found that students most readily identify stress effecting their mental health over their physical health or academic performance. Being aware of these students' responses gives a small insight into the steps that can be taken to better support students during their undergraduate experiences.

These findings are important for the field of music therapy, general education, and academic support services. By recognizing the use of music in students' lives to cope with stressors, there can be an increased educational push and call to action towards teaching students coping strategies. The concept of focusing on what one does naturally in their everyday and increasing the frequency or intentionality of that task is a holistic way of increasing students' functional abilities academically, mentally and physically. These skills are transferable across disciplines.

Appendix 1: Tables and Figures

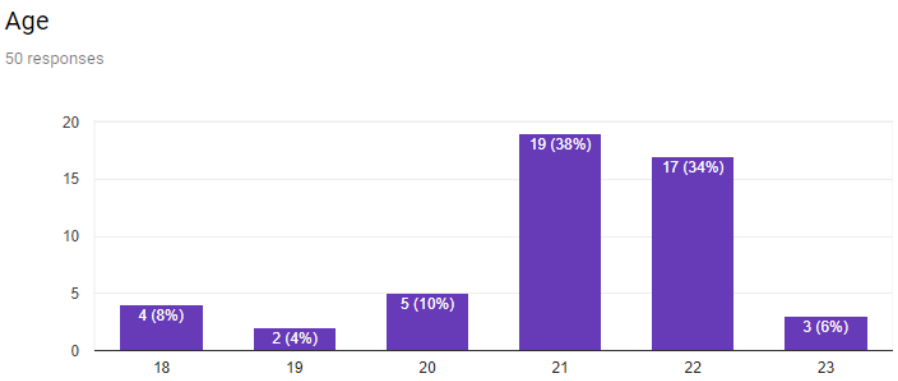

Figure 1 Respondent Ages

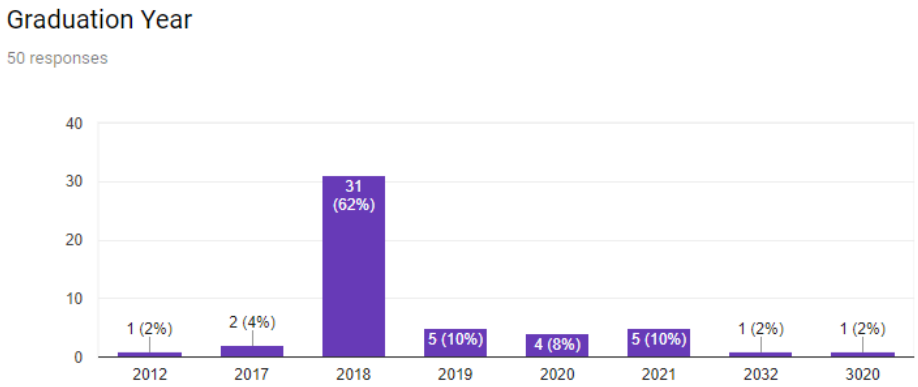

Figure 2 Respondent Graduation Years

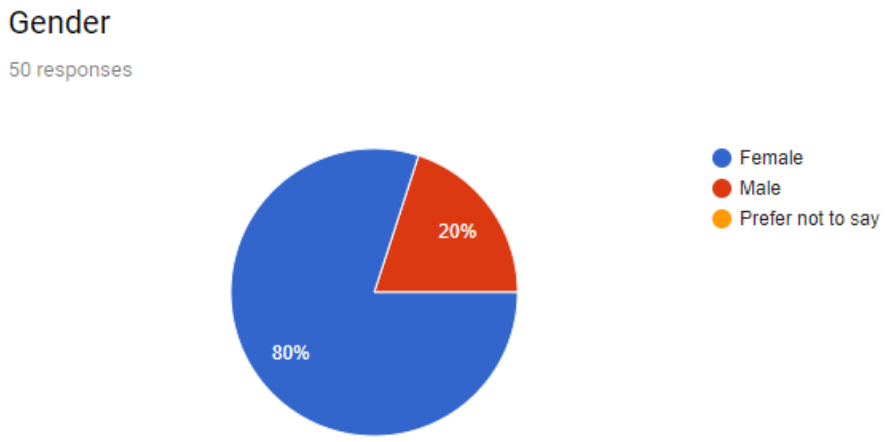

Figure 3 Respondent Genders

Table 1 Respondent Colleges/Universities

# Responses	**College/University**
31 (24)*	Anna Maria College
1	Brown University
1	Central Connecticut State University
1	Coastal Carolina University
1	Community College of Rhode Island
1	Eastern Connecticut State University
1	Hofstra University
3	Iona College
1	Killington School of Resort Management
1	Naugatuck Valley Community College
1	New York University
1	Pratt Institute
1	Rhode Island College
1	Simmons College
1	Southern New Hampshire University
1	Stetson University
1	Stonehill College
1	Texas Tech University
1	University of Connecticut
1	University of Massachusetts Amherst
1	University of Maine
2	University of Rhode Island
1 (0)*	Utah State University
1	Worcester Polytechnic Institute

*Number of responses identified within parenthesis ( ) indicate the number of usable responses compared to the total of responses. Differentiation between these two numbers comes from data collected from students who are majoring in a variation of the music field (for our purposes, music education, general music studies, and music therapy).

Table 2. Major Fields of Study

Major Field of Study	**# of Respondents**
Psychology	7
Business (Administration, Management)	5
Nursing	7
General Studies/Liberal Arts	2
Education	6
Biology	2
Human Development and Services	1
Art (Therapy, Studio Art, Graphic Design)	3
History	1
Criminal Justice	2
Robotics Engineering	1
Interior Design	1
Urban Economics and Planning	1
Hospitality	1
Journalism	2
Health Science	1
Sports Management	1
Fire Science	1
Speech Language Pathology	1
Accounting	1
Communications	2
Undecided	1
TOTAL	**50**

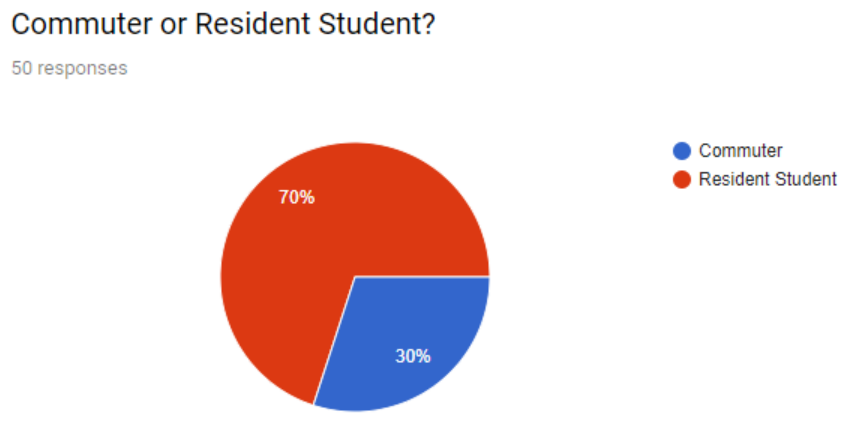

Figure 4 Respondents Residence Status

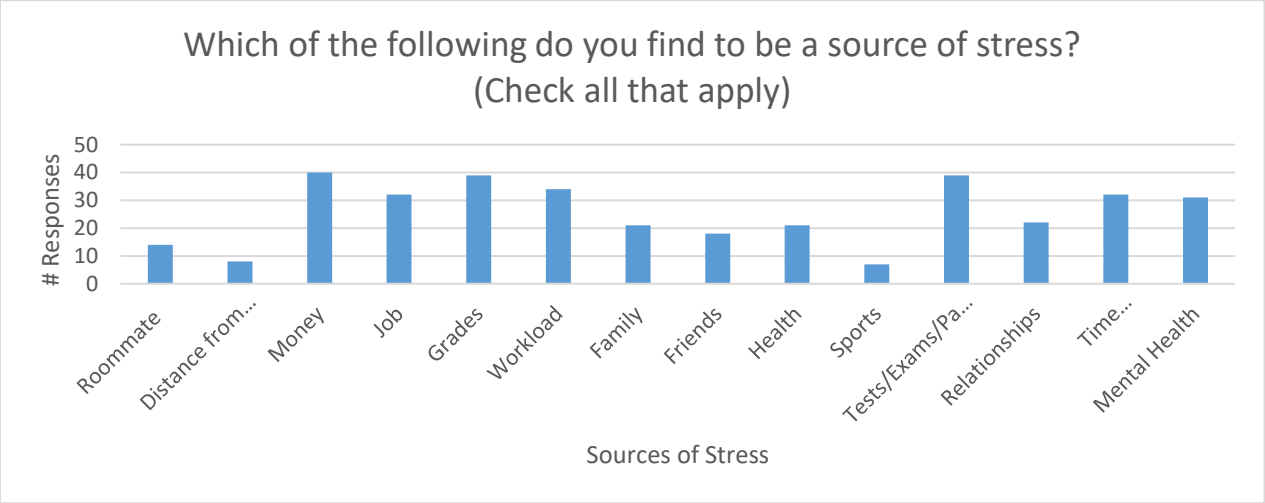

Figure 5 Source of Stress Data

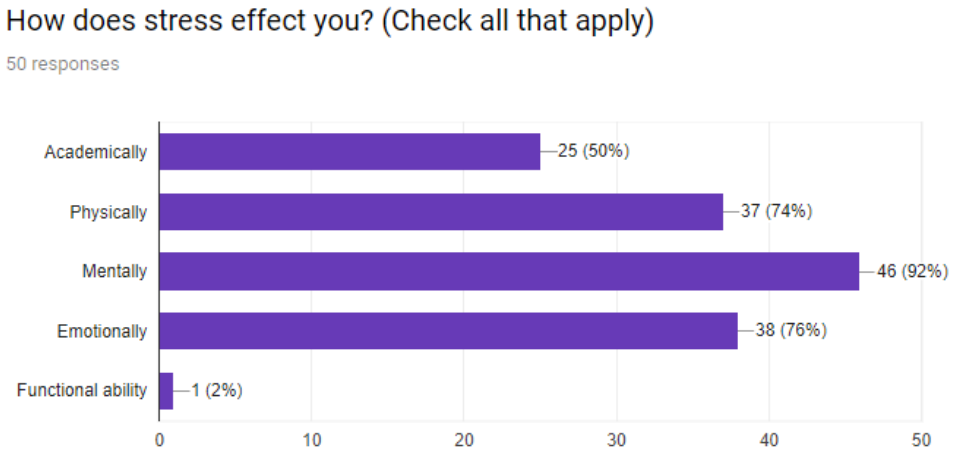

Figure 6 Effects of Stress

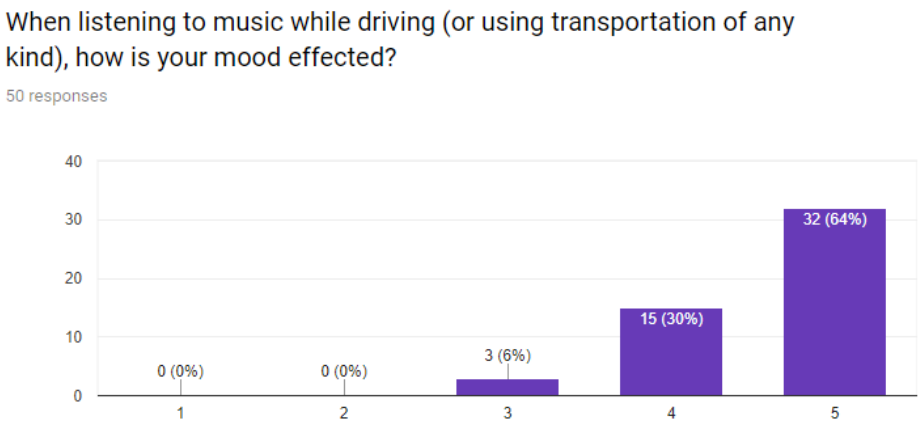

Figure 7 Music Effect - Driving

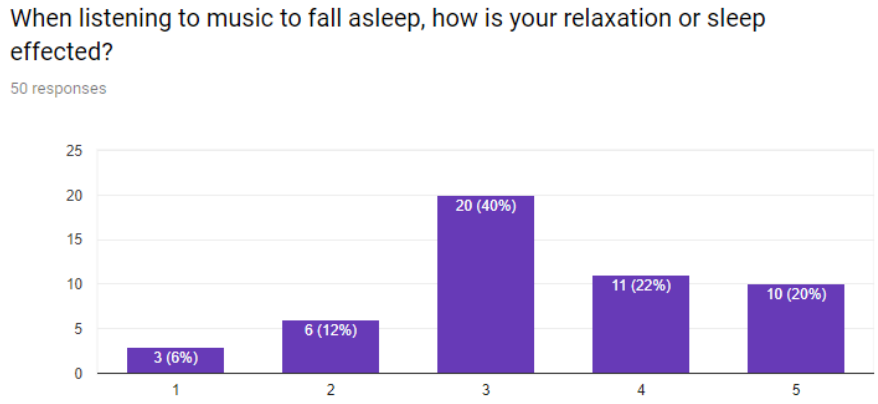

Figure 8 Music Effect - Sleep

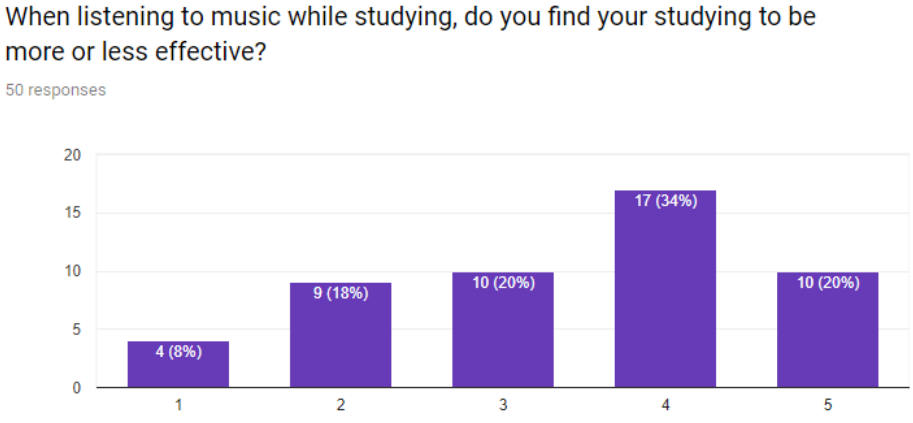

Figure 9 Music Effect - Studying

Table 3. Open Responses – Music Listening Frequency

Category	**Subcategory**	**Number of Times Mentioned**
Every Day		19
	Daily	3
	1x/Day	1
	Multiple x/Day	1
	2 hours/day	1
	>3 hours/day	1
	4-6 hours/day	1
	Multiple hours/day	1
	All Day	1
All the time		4
	Constantly	4
	As much as possible	1
	Always	1
Often		5
Situationally*		(N/A)
	Shower	1
	Parties	1
	Concerts	1
	In Room	1

* Categories used for identification and clarity purposes only, no responses indicated these words specifically (identified in the far column with a N/A).

Table 4. Open Responses - Music Listening Purpose

Category	**Subcategory**	**Number of Times Mentioned**
All Situations		2
	Functioning (Daily Living)	2
Mood Improvement		6
	Feel Good	1
	Emotional Release	4
	Stress Relief	7
	Increase Enjoyment	1
Travel*		(N/A)
	Walking Around	3
	Driving	8
Relaxation		7

	Meditation	1
	Shut off for a bit	1
	Re-Channel Mind	1
	Escape	2
Focus		1
	Homework	5
	Studying	5
	Prevent Distractions	1
Reflection*		(N/A)
	Understanding Problems	1
	Find Meaning	2
	Make Sense of Chaos	1
	Motivation	1
Social Use		
	Relate to Others	1
	Connect with Others	1
	Expand Cultural Awareness	1
Recreation		2
	Fun	7
	Activities	1
	Parties	1
	Concerts	1
	Singing	1
	Working Out	5
	Cleaning	2
Passive Listening*		(N/A)
	Fill Silence	1
	Background Noise	1
	Getting Ready	1
	Speed Up Time	2

* Categories used for identification and clarity purposes only, no responses indicated these words specifically (identified in the far column with a N/A).

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