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Community College Students' Perceptions About Listening to Music to Cope with Stress

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This is to certify that the doctoral study by

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Walden University
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Abstract

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MA, Skidmore College, 2007

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Abstract

The local problem addressed in this study was that students at a community college are experiencing stress levels that may impede their ability to learn. The purpose of this qualitative study was to examine student perceptions of self-selected music listening as a strategy for learning under stress. The theory of emotional intelligence by Goleman was the conceptual framework that informed this study. The research questions focused on student perceptions of how music listening affects their ability to decrease stress while learning and increase learning effectiveness. The methodology for this study was a basic qualitative design. Eight students between ages 18 and 24 responded to semi-structured questions via Zoom. To be included in the study, students had to be enrolled at the college but not in any music classes. Three overarching themes were identified through in vivo coding. Traditional-age community college students use music listening to modulate physically, emotionally, and mentally and mitigate stress in order to learn. The resulting project was a three-day faculty development seminar aimed at informing faculty of the problem of student stress and how students use music listening to mitigate stress while learning and increase learning effectiveness. The study serves as an agent for positive social change by investigating student perceptions of music listening, learning, and stress to inform programming involving increasing retention and student success.

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Dedication

I dedicate this project study to my husband, Dr. Joseph Gulyas, who supported and encouraged me in this journey. I also dedicate it to my parents Frank and Joan Hoover, and my sister, Janet Zielinski, who inspired me to be a lifelong learner. To my children, Melanie and Jay, their spouses, Amy and Oudou, and grandchildren Rokia, Maimouna, Aminata, and Wesley, whose love has sustained me through this challenge. I also dedicate this to all my students whose love of music has filled me with joy throughout my teaching career.

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Section 1: The Problem

The Local Problem

Community college students have unique characteristics that set them apart from students who attend four-year colleges. The overwhelming majority live at home and have responsibilities over and above their academic work (Wyner, 2014). The average community college student may work full-time, have children at home, and have personal or financial difficulties that impede their academic success (Wyner, 2014). Community college students often have decreased retention due to competing responsibilities (Martin & Bohecker, 2021). Students are easily overwhelmed by the stresses of academia coupled with other commitments. Significant stress can become crippling (Beiter et al., 2015). With current costs of higher education, students are under pressure to make the right choices; this adds to the amount of stress they experience, which can affect their ability to succeed.

Student stress is an issue that college faculty, staff, and administrators recognize daily at MCC (pseudonym) . MCC is an urban two-year community college in the northeast United States. Some MCC students are experiencing personal and academic stress that may hinder their learning ability. MCC faculty, staff, administration, and advisement staff are observing increased stress among the student body. Evidence comes from email communications with administrators and faculty at MCC involving their perceptions regarding student stress levels. These professionals have direct and indirect contact with students, and each offered their unique experiences with the issue. The local

problem addressed in this study is that some traditional-age students (ages 18-24) at MCC may be experiencing stress levels that impede their ability to learn.

Rationale

Evidence of the Problem in the Literature

A growing population of college students is struggling to manage the pressures of their daily lives coupled with their classroom responsibilities (Meredith & Frazier, 2019). Students who may be overwhelmed have difficulty completing their courses of study, which delays their entrance into the workforce. One-third of the average freshman class does not return as sophomores (Stevens et al., 2019). Therefore, this phenomenon requires attention. College students make up 34% of the population in the U.S. (Martin & Bohecker, 2021).

Stress levels can affect learning and the ability to recall information. An overlap exists between the areas of the brain associated with the fight-or-flight response and areas associated with memory and learning (Vogel & Schwabe, 2016). Stress causes the release of catecholamines, which results in chemical changes in the hippocampus, prefrontal cortex and amygdala. As a result, stressful events are often easily recalled. However, stress not related to the specific context of learning can inhibit the assimilation of new information (Vogel & Schwabe, 2016). Stress can alter the quality of memories, affect the ability to retrieve information, and inhibit the integration of new learning into existing knowledge (Vogel & Schwabe, 2016). Therefore, students attempting to learn under stressful conditions are at a distinct disadvantage.

Among 4760 university students, 78.5% of participants were experiencing some form of psychological stress (Porru et al., 2021). Students must deal with personal and parental relationships and expectations involving time management and academic performance (Fiore, 2018). College students have reported high stress levels and indicated that stressors were financial, academic, and environmental (Hoyt et al., 2021). The number of community college students seeking counseling appointments has risen by 40% since 2020 (Strom et al., 2021). In addition, 60% of students receiving care at college health centers had previously received help for mental health concerns (Center for Collegiate Health, 2020). The Center for Collegiate Mental Health (2020) said clinicians treating college students ranked stress as the third most prevalent area of concern, after anxiety and depression, and 24.6% of students received the emotional support they needed from parents and family. In addition, 23.2% of participants stated they received necessary emotional support from friends (Center for Collegiate Mental Health, 2020). High stress levels can result in lower grade point averages, feelings of hopelessness, and increased dropout rates (Wieland & Kucirka, 2020). Academic problems can intensify to the point where students feel that life is not worth living (Bhujade, 2017). Specifically, millennials born between 1981 and 1996 have a more challenging time than previous generations in terms of learning under stress (Martin & Bohecker, 2021).

A significant source of stress for college students was the COVID-19 pandemic, which forced many colleges to convert to distance learning. In March 2020, at least 1102 universities and colleges switched to distance learning, affecting over 14 million students (Hess, 2020; Munsell et al., 2020). Students had to adapt to distance learning

environments, which was, for many, unfamiliar (Lopez-Castro et al., 2021). Online learning connected them with the college but distanced them from friends, professors, and support services (Krause et al., 2021). Many college mental health offices converted to Telemedicine, which was only available for students with reliable internet access (Moore, 2021). Students who lacked reliable Internet or adequate equipment had to withdraw from classes, and students who relied on sports scholarships saw their hopes of completing a degree dissipate (Swanson & Smith, 2020). Some international students on educational visas had to return to their country of origin, and many have yet to return (Vidas et al., 2021). Students who relied on college to assist with food and housing insecurities also suffered (Hoyt et al., 2021). COVID-19 circumstances have increased stress among college students. Of 195 students surveyed at a large university, 44% experienced high levels of depression, and 8% experienced suicidal ideation specifically because of the COVID-19 pandemic (Son et al., 2020). At one college, 217 undergraduate students demonstrated detrimental behaviors such as increased sedentary time and time spent watching upsetting news on the television or social media platforms, and the increase in stress caused by COVID-19 resulted in students actively seeking ways to mitigate stress (Huckins et al., 2020).

Attending college is often viewed as a significant life milestone. Students are expected to work autonomously, possibly for the first time, without support from home. Students who are not academically and emotionally prepared for this transition can find this stressful. According to Erikson (1968), college attendance is one of the most significant life changes and transitions which leads to autonomy in adulthood. During

their college years, students are asked to make major life choices regarding their futures and career choices (Robbins & Wilner, 2001). As a result, students and graduates can go through a quarter-life crisis, involving paralyzing fear and an inability to move forward (Robbins & Wilner, 2001). Incoming community college freshmen in the United States have only a one in four chance of graduating in under 3 years, and only a third of students will earn a degree within six years (Miller et al., 2020; Wyner, 2014). As a result, this affects their ability to reach their long-term academic goals.

Stress can have an adverse influence on students' ability to retain information regardless of whether the class is remote or face-to-face. Chronic stress can affect focus and memory speed (Heissel et al., 2017). Additionally, stress levels can affect the ability to learn and recall information. Stress deleteriously affects students' ability to retrieve material and can also alter the way material is stored in memory structures (Vogel & Schwabe, 2016). The ability to integrate concepts while learning is decreased under stress, and high cortisol levels are associated with decreased cognitive performance (Heissel et al., 2017).

Listening to music is a powerful method to reduce stress that is nonpharmacological and noninvasive (Pan et al., 2020). With the prevalence of phones, students have constant access to whatever music they prefer. Listening to one's personal choice of music is a low-cost and effective coping strategy that does not involve medication, which might have side effects (de Witte et al., 2019). More information is needed to explore connections between music listening and stress in college students. Increasing awareness of this issue in the educational community could lead to greater

understanding of music listening and the possible mitigating influence it has on learning in the community college student population.

Evidence of the Problem at the Local Level

Several indicators show that MCC students may have had to seek additional coping mechanisms to help manage stress. An MCC department chairperson reported an increase in the number of students seeking help at the Wellness Center, and, in response, MCC has developed a campus wellness program to aid students in learning under stress. In a college-wide meeting regarding student issues, the MCC Vice President of Academic Affairs discussed inordinately high-stress levels reported by students and called on faculty and staff to facilitate student success. An MCC professor stated that professors are called on to help students deal with stress while learning. The professor reported that students feel overwhelmed, and some have had to seek inpatient care. Increased student stress was noted due to fears of falling behind and not graduating on time. Similarly, a student advisor at the site stated that some students were hesitant to enroll in classes for the fall 2021 semester, stating fears of not coping with stress while learning. The purpose of this qualitative study was to examine student perceptions of self-selected music listening as a strategy for learning under stress.

Definitions of Terms

Academic Success: One's ability to complete the required work in a school setting and obtain a favorable result in terms of grades, scores, and GPA (Weatherton & Schussler, 2021).

Academic Stress: Pressure or tension related to the educational environment. Fear of failure due to an inability to complete assignments, papers, tests, and other academic tasks. (Akinci, 2021).

Coping: Actions or behaviors that keep individuals from psychological harm during a problematic social experience (Sanchez-Ruiz et al., 2021).

Emotional Intelligence: The measure of one's ability in terms of five domains: self-awareness, the ability to manage emotions properly, motivation and self-control, empathy, and management of relationships (Goleman, 1996).

Music Listening: The act of listening to or focusing on a piece of music. This action can be active, passive, or unconscious (Chan & Han, 2022).

Nontraditional Student: Students over 25 years old, first-generation students, students returning after a career, or students looking to change careers (Jesnek, 2012).

Retention: The measure of student persistence from one academic year to the next (Braxton et al., 2014).

Self-Selected Music: Music chosen according to the preference of the listener (Groarke et al., 2020).

Stress: Individual state of mind where the environment is perceived to be endangering wellbeing, exceeding resources to cope, or perceived as challenging (Araiza & Lobel, 2018).

Traditional College Student: Students under 23 years of age (Spitzer, 2000).

Significance of the Study

MCC students may benefit from additional research designed to find constructive strategies to aid with learning under stress. Support programs might be necessary beyond services currently provided by college counselors. Research-based strategies could be helpful in terms of the creation of student-centered policies at MCC. Administrators at the site could investigate avenues for providing programing regarding positive coping strategies, interventions, and curriculum adaptations that can assist students. Colleges may implement innovative programs to improve interpersonal skills and coping abilities. Results of this study could influence college programming involving increased retention and student success.

Research Questions

Community college students deal with stressors that can affect their ability to be successful in academic settings. College students spend a reasonable amount of time each day listening to self-selected music (Krause et al., 2021). The research questions under investigation in this project study are:

RQ1: What are perceptions of MCC students between 18 and 24 who are not enrolled in music classes in terms of how music listening affects them while learning under stress?

RQ2: What are perceptions of MCC students between 18 and 24 who are not enrolled in music classes involving self-selected music listening to decrease their stress while studying?

RQ3: What are perceptions of MCC students between 18 and 24 who are not enrolled in music classes involving self-selected music listening to increase learning effectiveness?

Review of the Literature

Conceptual Framework

The theory of emotional intelligence by Goleman was the conceptual framework for this study. Emotional intelligence refers to one's ability to cope with issues that occur in daily life and whether strategies are productive or counterproductive. Emotional intelligence also affects ability to persevere in uncomfortable or stressful situations. Emotional intelligence also pertains to how one can manage one's emotions and subsequently understand feelings of others (Birajdar, 2016). The four domains emotional intelligence are self-awareness, self-management, social awareness, and relationship management (Goleman & Boyatzis, 2017). Self-awareness is the first domain, and the related competency is emotional self-awareness. Self-management, the second domain, includes emotional self-control and adaptability, and related competencies are achievement orientation and positive outlook. Empathy and organizational awareness are part of the domain of social awareness. Finally, the domain of relationship management includes coaching and mentoring, conflict management, and inspirational leadership as competencies (Goleman & Boyatzis, 2017). Emotional intelligence can impact a person's life or career regardless of IQ. It pertains to the ability to manage emotions while also remaining rational (Kaur & Hirudayaraj, 2021). Skills related to emotional intelligence can be important when preparing young people for college and the workplace. The ability

to deal effectively with stress in the workplace is a vital skill in the 21st century, and students may need to develop these competencies to be successful. I chose this theory as the framework for my study because it relates to one's innate ability to recognize and manage emotion or stress. The competencies included in the theory of emotional intelligence inform this study in terms of formulating and organizing interview questions. The conceptual framework relates to the qualitative research approach as I asked students to respond to questions about their ability to deal with stress.

Review of the Broader Problem

The following section is a synthesis of published research pertaining to community college students and use of self-selected music to cope with stress. I retrieved peer-reviewed articles and studies from the following Walden databases: ERIC, Academic Search Complete, Education Source, SAGE Journals, Science Direct, and Taylor and Francis, Thoreau, Google Scholar, APA PsycInfo, ProQuest, ProQuest Nursing and Allied Health, JSTOR, and Scholarworks. I limited my search to material published between 2017 and 2022, with exceptions for notable or seminal works. Search terms were *community college or two-year college*, *higher education*, *college students*, *stress*, *stress* and *coping*, *stress management*, *student depression and anxiety*, *psychological state of college students*, *college students and sleep, college student study habits, music, music listening, music and the body, music and the mind, music and coping, music and mood, music and learning, music and studying, music and memory, self-selected music, stress and musical genre, personal listening devices, background music, COVID-19, COVID-19 and colleges, COVID-19 and college students, COVID-19*

and stress in college students. After research provided no new information and the same authors appeared, I assumed that saturation was achieved. Themes emerged after a thorough review of literature.

Community College Student Stress

The inability to adequately manage pressure can result in increased stress levels in college students that, without support, can result in failure or withdrawal (Kleinpeter et al., 2018). In 2015, 34.8% of community college students completed their degree, as opposed to 58.6% of four-year college students (Martin & Bohecker, 2021). Reduced retention and completion may be due in part to stress.

Circumstances peculiar to the community college academic environment may contribute to this phenomenon. Less stringent admission requirements can lead to students struggling to succeed due to a lack of academic preparedness (Bailey et al., 2015). Extra classes may be necessary before students can begin their programs of study. Students who require developmental or English as a second language courses to improve their academic ability may spend more time in college, which increases their financial expenditure (Hawkins, 2019). Taking remedial courses could pose an extra financial burden for students, and some of these classes are not credit-bearing (Hawkins, 2019). First-year students are at higher risk for increased stress and are particularly vulnerable to pressures that may interfere with their academic success (Cheung et al., 2020). Students may suffer from either single event stress or chronic continuing stress as part of their academic life (Stevens et al., 2019). Single event stress may pertain to a large paper or final exam. Heavily weighted projects or final exams can also cause this type of stress

(Heissel et al., 2017). Chronic stress is ongoing and unrelated to a single significant event (Stevens et al., 2019). Students can experience chronic stress caused by a lack of academic preparedness, language barriers, or personal stressors from home and family.

The COVID-19 pandemic affected the academic lives of college students. Before the onset of the COVID-19 pandemic, 65.7% of college students stated they felt overwhelmed, and 58.7% indicated they were experiencing higher than average amounts of stress (Hoyt et al., 2021). The COVID-19 pandemic exacerbated stressful conditions for college students. Students who had experience with distance learning may have fared better than their student colleagues who were used to face-to-face instruction. As their personal world faced significant changes, so did their academic environment. Distance learning can be overwhelming, confusing, and isolating for students with little experience in this instructional environment. Students who had difficulty adapting to online instruction experienced added stress, and some failed or withdrew from classes.

The pandemic affected students' personal lives as well. One hundred and ninety five students from a large university reported difficulties with concentration, sleep, finances, and living arrangements (Son et al., 2020). Students worried about their health and ability to meet their college requirements. Students with school-aged children had to help their children adapt to distance learning while working to complete their own academic requirements (Munsell et al., 2020). Son et al. (2020) said students felt isolated, and some reported depressive or suicidal thoughts (Son et al., 2020). Of the 195 students in this study, 34% indicated adaptive behaviors to deal with stress, such as exercise, watching movies, or talking with friends (Son et al., 2020). 50% of participants reported

maladaptive behaviors such as sleeping all day. 26% of students reported overeating, and 89% lacked the ability to concentrate and participate in classes (Son et al., 2020).

Increased anxiety and depression occurred due to significant life disruption (Lopez-Castro et al., 2021). The pandemic caused disruption of school, work, social life, and home life for students. Many who lived on campuses were displaced, and some had to return to living with their families. Munsell et al. (2020) said that of the 236 college students in their study, 20% had to change their living arrangements. Another 20% in the same study lost their jobs. Students' physical and mental wellbeing was also affected. Psychological stress was more significant among students who had loved ones who were ill or had passed away from COVID-19 (Lopez-Castro et al., 2021). Students at community colleges are dealing with stress levels that may impede their academic success. The onset of COVID-19 significantly increased stress for students locally and nationally. Many students sought avenues to help them cope mentally and physically during this stressful time.

Music Listening for Stress Reduction

Music affects various systems of the body and mind and can aid in stress management. The practice of listening to music predates ancient times and exists as a phenomenon in all cultures and civilizations (Blacking, 1973). Music profoundly influences brain chemistry (Chanda & Levitin, 2013).The sense of reward or satisfaction that people gain from music listening is attributed to the release of dopamine and opioids within the midbrain structure (Chanda & Levitin, 2013).The midbrain is below the cerebral cortex and is responsible for processing of visual and auditory information.

Chemical reactions contribute to a pleasurable state, which people often reproduce during the day. The chills down the spine phenomenon is attributed to increased regional cerebral blood flow in the mesocorticolimbic system. The release of opioid peptides within the brain contributes to the desire to have repeated musical experiences (Chanda & Levitin, 2013). These chemical changes are why many people turn to music listening to mitigate stress.

Impulses travel along the auditory cortex of the brain during music listening. Messages processed by the limbic system result in emotional responses (Pan et al., 2020). The brain releases neurotransmitters and endorphins that can affect mood. Music listening affects people psychologically in many ways, but predominantly in terms of mood regulation and stress reduction. Substantial stress reduction was reported due to music listening via electroencephalograph in 14 males and 13 females ranging in age from 20 to 35 (Asif et al., 2019). Increased stress results in raised amounts of adrenalin and noradrenaline, activation of the sympathetic nervous system, and aroused heart rate, respiration, and blood pressure (de Witte et al., 2019). Therefore, stress can result in measurable changes in the body and mind.

Listening to relaxing music decreases stress hormones. Music affects the hypothalamic-pituitary-adrenal axis and leads to endorphin and cortisol release (Chanda & Levitin, 2013). Endorphins create a feeling of pleasure which can lower the amount of cortisol or stress hormones. Stress levels in the body can be measured by bloodwork testing for stress hormones. The influence of music on stress can be quantified by measuring cortisol levels and autonomic nerve enervation. Reduction of stress can return

the mind to equilibrium or homeostasis. Reducing stress hormones may facilitate concentration and aid learning (Ooishi et al., 2017). Listening to music activates alpha waves in the brain, resulting in the release of endorphins, lower blood pressure, and slower pulse rates (Osmanoglu & Yilmaz, 2019).

Scientists have been aware of the influence of music on the body for centuries. The Greek philosopher Aristoxenus studied the influence of musical intervals specifically on the mind and body of listeners. The notion of examining the impact of music on the body dates to the early 19th century and the work of Hermann von Helmholtz. Helmholtz made the connection between sound and physiological reactions in humans. Listening to music has psychophysiological benefits (Linnemann et al., 2016). Music listening can affect stress levels by reducing blood pressure, heart rate, body temperature, respiration rate, and sensitivity to pain (Mojtabavi et al., 2020). Therapists use music in conjunction with cardiology, oncology, psychology, psychiatry, and pain/stress management (Mojtabavi et al., 2020). Music is also associated with healing in religious or spiritual groups as a meaningful shared experience (Gurgen, 2016).

Music listening can also aid students in coping with stress through social affiliation. Social affiliation, or the desire or tendency to interact with others, is a function of music (Gurgen, 2016). Playing or listening to music as part of a group is a behavior that dates to ancient times and plays a role in the cohesion of societal groups. Concerts, festivals, and performances increase social participation and provide opportunities to bond with others (Hu et al., 2021). Music can lead to forming cohesive bonds between mothers and their offspring and has long served key element in social rituals (Blacking,

1973). The neuropeptide oxytocin, released by the posterior pituitary gland, is associated with feelings of affiliation and other affective emotional states. Similarly, music listening can result in oxytocin release which creates a sense of bonding and connection and elevates mood (Chanda & Levitin, 2013).

Music listening reduces loneliness and increases a sense of social relatedness, enjoyment, and wellbeing (Krause et al., 2021, p. 6). Connecting to others fulfills a basic human need. Therefore, listening to music as part of a group creates a sense of belonging and community (Koelsch, 2014). Singing, playing instruments, or dancing with others can result in joint emotionality (Koelsch, 2014). Music listening can also create a sense of connection when one listens alone. Music can function as a surrogate friend. The imagined presence of a virtual friend enhances the sense of connection to the composer, performer, or another person (Schafer et al., 2020). For example, when the lyrics relate to a person's life experience, the music is perceived as communication with the singer, who becomes a virtual friend who can offer comfort, making the listener feel more understood and less isolated. Listening to music can make one feel understood and accepted by an imagined friend (Saarikallio, 2011).

Emotional contagion is another phenomenon by which the listener takes on the singer's attitudes, associations, and memories (Larwood & Dingle, 2021). Music listening can create nostalgia, bringing back memories and people from the past. Listeners may also have an emotional reaction caused by visual imagery evoked by music (Belfi, 2019). There is a correlation between music listening and positive mental imagery that can increase the effectiveness of the experience (Panteleeva et al., 2018). Perceived or

expressed emotion involves the emotional state of the composer or performer, and induced emotion means the emotional reaction of the listener (Hu et al., 2021, p. 4). Music listening provides a conduit for both types of expression. People turn to music listening for a sense of enjoyment and emotional support that satisfies social and psychological needs (Gurgen, 2016). Sense of enjoyment can also result in mood changes.

Young adults turn to music listening for three predominant mood-regulating functions: release of negative feelings, consolation or solace, and diversion, distraction, or escape (Saarikallio, 2011). Often when people listen to music, it is mood-congruent or matches their current mood. Mood-congruent music can enhance the current mood or emotion. For example, when people are sad, they may gravitate toward sad music. However, this tendency is not always consistent. Mood repair can also be achieved by choosing music that is opposite to the current emotional state (Schafer et al., 2020). Mood-incongruent music (not the same or in keeping with the current mood) or non-mood congruent music can serve as a distraction and allow the listener to focus on something other than their current situation. Schafer et al. (2020) found that 90 participants experienced a happier mood after music listening, compared to their mood before music listening.

Mood repair occurs predominately when the music is self-selected and corresponds with personal musical preference. When given a choice, 322 participants chose either the genre or style of music that matched or improved or altered their mood (Gurgen, 2016). McFerran and Aryballoi (2014) said that all their 40 participants

confirmed they felt happier, more connected, more relaxed, relieved, and confident when they were allowed to choose their music. Similarly, 127 participants in a study conducted via questionnaire during COVID- 19 experienced greater life satisfaction when they had active control over the music they heard (Krause et al., 2021). Specific musical genres can increase or decrease stress levels in undergraduate students (Burns et al., 2002). Among the sixty undergraduate students who listened to heavy metal, classical and self-selected music, MANOVA showed significant reductions in stress levels in those who used self-selected music.

The influence of mood regulation, repair, and connectedness can be altered by the genre of music one hears. Depending on personality, one genre may affect stress more than others. Listening to modern pop music can directly reduce psychological stress in college students (Shang, 2020). Classical music was shown to relieve tension in 437 college students and positively affect their mental health (Chi, 2020). Asif et al. (2019) also examined the feelings created by listening to rap and rock genres. The genre or style of music affects the level of relaxation; however, some genres, like heavy metal, may increase stress (Labbe et al., 2007). Self-selection can increase the stress-relieving benefits of music listening.

Musical elements such as tempo can affect the stress-relieving nature of music listening. Tempo, or the speed that a piece of music is played, is a key factor in affective reactions to music (Ooishi et al., 2017). Using an EEG on 437 participants, Chi (2020) found decreased stress levels in the study group exposed to soothing or slow-paced classical music and increased levels in those exposed to fast-paced music. Ooishi et al.

(2017) conducted studies examining the effect of music that was relaxing and music that was exciting. Music with a slow relaxing tempo resulted in a slower heart rate and increased salivary oxytocin and cortisol levels. Salivary cortisol levels decreased in participants who listened to music with a fast or exciting tempo. Slower tempos are often associated with seriousness or sadness. Similarly, faster tempos are commonly associated with happiness or brightness (Levitin et al., 2018). Therefore, tempo can contribute to the effectiveness of the listening experience.

Each person's experience of a piece of music may differ depending on emotional valence and arousal (Cohrdes et al., 2020). Emotional valence pertains to whether the piece of music creates a positive or negative feeling for the listener. Arousal pertains to whether the piece of music activates or stimulates the listener emotionally. Valence and arousal can influence the overall musical aesthetic (Belfi, 2019). States of arousal and emotional valence depend on the preference and personality of the listener and are, therefore, subjective. It is important to note that arousal and pleasure are not synonymous (Belfi, 2019). A piece of music can be stimulating but not emotionally pleasing. Other characteristics that affect emotional valance and arousal are volume and key. Higher volume is associated with a greater level of arousal. Whether a piece is in a major or minor key can affect valence (Belfi, 2019). It follows that musical elements that affect emotion would also pertain to stress.

In conclusion, music listening can result in changes in the mind and body. The listener can experience social affiliation, mood regulation, and mood repair. Changes in the mind and body are more significant when the music is self-selected. Musical

characteristics such as tempo and genre play a role. Valence and arousal can influence the overall feeling of the music. College students spend time during the day seeking these experiences.

Music Listening Modalities

Since the creation of the internet, young people have spent considerable amounts of time online (Jones et al., 2009). With the rise of cell phones and social media, opportunities to connect online have become ubiquitous. Other than phone conversations and the use of the internet, college students spend time listening to music via their cell phones. Cell phones have become a popular personal listening device (Gonzalez & Aiello, 2019; You et al., 2020). Students use personal listening devices to listen to music without bothering others, serve as company during free time or study time, and drown out noisy environments. You et al. (2020) said that 1009 students reported that they used personal listening devices when feeling bored, to aid relaxation, to help them concentrate, and some used personal listening devices to isolate themselves from others. In contrast, even a decade ago, music listening has become a more individualized form of entertainment (Greb et al., 2019). Students often listen to music via over-the-ear headphones or earbuds placed inside the ear. Applications like Spotify, YouTube, Apple Music, SoundCloud, and Pandora allow listeners to self-select the music they want to hear. Millions of digital song choices are currently available via the internet, and people can select pieces that suit any mood or situation (Lehmann & Seufert, 2017).

Music Listening for Learning Enhancement

Stress is a primary disruptor of academic achievement (Martin & Bohecker, 2021). Martin and Bohecker (2021) conducted a study involving 807 community college students to investigate this issue. Among the chief impediments to academic success, stress (30%) is rated above anxiety (20%), depression (14%), finances (6%), and use of alcohol (4%). Stress can result in rigid memory formation rather than more flexible memories that allow for integrating concepts (Heissel et al., 2017). Increased stress can result in slower memory speed and impaired focus, make learning more difficult (Heissel et al., 2017).

Music listening is one strategy students reported aided their ability to focus on their work. Fifty-nine percent of university students listen to music while studying (Lemaire, 2019). Researchers have examined the influence of music listening on learning. Forty students from 20 different universities reported that music listening can increase the ability to focus, reduce distraction from background noises, improve concentration, and reduce stressors that can interfere with learning (Hu et al., 2021). In addition, listening to music may increase a state of arousal that can aid learning (Lemaire, 2019). The level of arousal can increase or decrease depending on the tempo of the piece of music (Lehmann & Seufert, 2017). Music listening can decrease boredom and aid memory (Hu et al., 2021). Music listening can also create a positive or happy emotional state, resulting in an improved ability to focus on schoolwork (Gonzalez & Aiello, 2019). It can also increase relaxation, decrease boredom, and improve concentration (Hu et al., 2021).

Reports released in 1993 about the Mozart Effect caused many researchers to investigate the influence of music on learning and spatial reasoning (Lemaire, 2019). Participants in the Mozart Effect study performed better than a control group on special-temporal tasks after listening to a Mozart Sonata. The researchers conducting the study concluded that music, specifically works of Mozart, caused an increase in cognitive ability (Rauscher et al., 1993). Although claims put forth by Rauscher et al. have been generally dismissed, other researchers have confirmed specific changes in the brain while listening to music that may support learning.

Changes in sleep and learning ability may occur due to the influence of music listening on theta activity in the brain. Gao et al. (2020) conducted a study involving 50 undergraduate students and found a correlation between theta activity and vocabulary or word translation, associative learning, and memory. Music listening also affects memory capacity (Lehmann & Seufert, 2017). Lehmann and Seufert (2017) found that of the 86 university students in their study, those with higher working memory capacity showed improved results while listening to music. Listening to music while studying has become a habit for some students, evident on college campuses, and these studies indicate that it can be beneficial.

Music Listening Habits of Community College Students

Gurgen (2016) found, in his study involving 322 students, that college students listen to between two and nine hours of music daily. Music listening is the most prevalent choice among young adults for free time activity (Gurgen, 2016). Students often listen to popular music as a means of social bonding, networking, and to decrease isolation

(McFerran & Saarikallio, 2014). Shang (2020) gave a questionnaire to 600 non-music majors and found that students believe that music listening can mediate psychological stress (Shang, 2020). A positive correlation is evident between music listening and wellbeing (Groarke & Hogan, 2019). Listening to music can have a positive influence on mood, increasing relaxation while reducing stress. Vidas et al. (2021) completed a survey of 402 university students who reported that as a coping strategy, music listening was as effective as exercise, calling a friend, having some form of social contact, or sleeping.

Many college students do not get the sleep they need. College students, on average, get fewer than seven hours of sleep a night (Gao et al., 2020). The National Sleep Foundation reported that young people in the United States do not get the recommended hours of sleep (Heissel et al., 2017). Insufficient sleep can affect students mentally, emotionally, and physically (Owens et al., 2017). Poor sleep can affect the immune system, stress levels, concentration, and cognitive functions. Sleep deprivation can also affect memory, attention span, and creativity (Gao et al., 2020). Community college students often have competing responsibilities, such as family and employment, which can affect the number of hours they can sleep (Owens et al., 2017). Students who do not get sufficient sleep tend to be less attentive in class and receive lower grades (Heissel et al., 2017). In females, insufficient sleep adversely affects spatial reasoning and short-term memory (Gao et al., 2020). A lack of sleep can also affect behavior and emotion regulation during the day (Heissel et al., 2017).

Music listening may aid students in increasing the quantity and quality of sleep. College students often play music while they sleep or listen to music before sleep

(Heissel et al., 2017). Students use music to aid in relaxation or as background noise. Classical music specifically helps young adults with sleep issues (Hu et al., 2021). Over twenty-six percent of the 292 college student participants in one study reported listening to music often before sleep (Pei & Brown, 2017). Pieces of music with 60-80 beats per minute alleviates stress and promote relaxation conducive to sleep (Pei & Brown, 2017). Music listening may also lead to relaxation of muscles in the body and provide a distraction from thoughts that may interfere with sleep (Harmat et al., 2008). It can also reduce heart rate, respiration, and blood pressure. Listening to relaxing music decreases activity in the sympathetic nervous system, which can negatively affect sleep (Harmat et al., 2008). Some people experience synchronization between the beat of the music and their heartbeat (Harmat et al., 2008). Music with slower tempos can create changes in systolic and diastolic blood pressure which aids relaxation. Music listening can also improve sleep quality (Hu et al., 2021). Music before and during sleep can significantly increase sleep quality and improve mood (Harmat et al., 2008). In conclusion, many college students do not get enough sleep which can negatively affect academic achievement. Conversely, improved sleep quality can have a positive influence on student stress. Music listening is one strategy that students use to relax and sleep, which may aid their academic ability.

Overexposure to stress may lead to decreased academic performance and physical, emotional, and mental health issues (Pan et al., 2020). It can also interfere with learning ability. Music listening is an effective method for mitigating stress in college students. Listening to music via personal listening devices is a powerful method to reduce

stress that is non-pharmacological and non-invasive (Pan et al., 2020). Listening to music is also low-cost and readily available (de Witte et al., 2019). Music listening can reduce stress in college students by providing social affiliation, mood regulation, mood repair, improved sleep, and increased learning ability. Tempo, genre, and self-selection contribute to this phenomenon. COVID-19 has increased stress in college students to the point where intervention could be beneficial. Although studies report that music listening cannot prevent stress, it is a powerful and effective tool for informal self-directed therapy (Peck et al., 2020).

Implications

Prolonged exposure to stress can limit long-term memory and impede learning (de Witte et al., 2019). Many community college students are at risk due to stress. Student perceptions of music listening as a strategy for stress reduction can help design programming to meet student needs. Interviews may reveal areas of the college environment that can be adapted to decrease stress. Professors may modify instruction to include music listening as a supplement to the curriculum. College personnel and counselors may benefit from a unique perspective on student stressors within the college environment. Colleges may need to modify support services to target music listening.

Summary

Nationally, many college students may be experiencing some form of stress. The COVID-19 pandemic has increased this stress. Additional research is needed to aid community college students in terms of their ability to learn under stress. To mitigate stress while learning, students often listen to music. Literature showed that music

listening could be an effective adaptive tool to deal with stress in college. Community college administration, and faculty may benefit from a greater understanding of this phenomenon, and modified programming and curriculum could foster student success.

Section 2: The Methodology

Research Design and Approach

This study's research methodology and design derived logically from the problem of student stress and research questions involving community college students' perceptions of self-selected music listening to decrease stress while learning and increase learning effectiveness. In preparation, I considered each method and different approaches, strategies, and philosophies and how they might inform my research goals before choosing what I felt to be the most appropriate. The research design for this study was a basic qualitative design.

Other research designs considered included case study, ethnography, evaluation research, grounded theory, narrative, phenomenology, and basic qualitative inquiry. Using case studies, researchers examine a specific place, time, and context. My study was not based on observations but gathering data based on responses to questions. Ethnography is another qualitative method that relies heavily on observation. I would have needed to immerse myself in the community college environment via field work to employ this method; therefore, this design was not appropriate for my study. The evaluation research approach is helpful in assessing an organization, identifying strengths and weaknesses and decision-making protocols to suggest ways to improve (Clarke & Dawson, 1999). The evaluation research design was not appropriate for my study as I was not examining procedures of any group or organization. Grounded theory research involves developing a theory from an intensive literature review or data analysis. In my study, the goal was to analyze and report on perceptions of a group of college students.

Theories emerged, but it was not the study's overarching goal, so I did not choose grounded theory. Narrative research involves locating and interpreting stories, biographies, diaries, or personal histories to formulate a new perspective. Narrative research also involves examining lived stories (Connelly & Clandinin, 2006). I was interested in perceptions of participants' current stress levels and how they used music listening to mitigate that stress, not the story of their stress. Phenomenological research is appropriate for studies that involve analyzing empirical data describing phenomenon and intention, which are the foundations of this type of research (Vagle, 2016). In phenomenological research, phenomena are defined as the relationship between human beings and the world they inhabit, and intention is that which connects people (Vagle, 2016). The phenomenological method was not applicable to my research as it would have required prolonged interaction with the study population.

The basic qualitative research method was therefore most appropriate for this study. Basic qualitative research is often used to solve practical problems (Ravitch & Carl, 2016). In this study, I examined MCC students' perceptions of music listening as a means to cope with stress while learning and how it might increase learning effectiveness.

Population

The current student population at MCC is diverse in terms of age, ethnicity, socioeconomic background, and academic ability. Race, socioeconomic background, and academic ability were not targeted in this research, and the study was limited to traditional college-age students between 18 and 24 (see Romeo et al., 2021). Older or

returning students over 25 may have more significant amounts of stress due to full-time employment, children at home, and greater financial responsibilities than traditional age students (see Jones et al., 2016). However, older and nontraditional students may have a higher emotional intelligence and more efficient coping mechanisms. Therefore, I focused on participants who could provide deep and rich information regarding their perceptions of self-selected music listening to decrease stress while learning and increase learning effectiveness.

Sampling and Sample Size

I used a purposeful sampling strategy to select participants for this study. Since it is impossible to interview every traditional-age student at the site, I focused on students who could address the proposed research problem for this study . Participants for this study had to be full or part-time students currently enrolled in classes. Students had to listen to music and have mild stress. Stress responses were measured using self-reporting measures (see Crosswell & Lockwood, 2020). It was important that participants self-identified as experiencing stress, as it was crucial to their ability to answer the research questions. Participants could not be enrolled in a course where I was the instructor to avoid bias. They were also excluded if they were working toward a music major. Those who planned to earn a degree in music were not targeted as they might be outliers due to their experiences with music listening and might have preconceived notions regarding music and stress.

In qualitative research, there is no general agreement on sample size. The sample size can depend on the study's type, scope, and goals. In qualitative research, the sample

size is not as important as the dedication to answer the research question with the rigor, thoroughness and attention to ethics necessary to provide a fresh understanding (Ravitch & Carl, 2016). My goal was to gather sufficient data about the topic under investigation. Sufficient data is needed to reach saturation. Researchers can achieve greater transparency by demonstrating how and to what extent they reached saturation rather than using larger samples (see Hennink & Kaiser, 2022). Young and Casey (2019) said that data collected from smaller samples can accurately depict the many dimensions of participants' lives. Therefore, I interviewed eight of the 3,640 enrolled students at MCC to answer research questions proposed for this study.

Data Collection Procedures

Data Collection Instrument

I used an interview protocol to collect data starting with an introductory statement explaining the study. Interview questions were designed to elicit substantive responses from participants regarding music listening and learning under stress. Patton (2015) says that there are six general groups of interview questions: experience/behavior questions, opinions/values questions, feeling questions, knowledge questions, sensory questions, and background/demographic questions. For a study involving music, it is appropriate to ask feeling and sensory questions. Before formulating questions for this study, I looked at stress surveys, including the College Undergraduate Stress Scale, Student Stress Scale, Center for Epidemiologic Depression Scale, and the International Stress Management Association Stress Questionnaire, to synthesize interview questions. The Undergraduate Stress Scale and the Student Stress Scale have the students identify events that might

occur in their daily lives for example failing an important course. Each event is assigned a numerical value which is tabulated to create a total score. The Center for Epidemiologic Studies Depression Scale requires student to indicate whether they experienced a specific feeling or sentiment using a scale of rarely, sometimes, occasionally or all the time. The International Stress Management Association Stress Questionnaire requires students to identify if have experienced a situation using a yes or no response. I did not use these questionnaires in my study but found them helpful in formulating my interview questions.

I created four sets of questions in this study. The first set pertained to general music listening habits. I asked participants where, when, and for how long they listened to music, as well as genres they enjoyed. I also asked them if they listen to music before and during sleep. In reference to RQ1, the second set was explicitly designed to investigate the impact of music listening while studying. They were asked how music functions for them while studying and whether the music affects them emotionally. The third set, relating to RQ2, involved participants' perceptions of the influence of music listening on coping ability, stress levels, and mood. I also asked about their voice of valence and whether they felt it had an influence on stress levels. Finally, the last set of questions involved the impact of music listening on learning ability and learning effectiveness. I asked participants how they felt music listening influenced their ability to focus and concentrate. I also included a few questions about music listening and learning during the pandemic, as participants are still dealing with ramifications. Questions were designed to avoid simple yes or no answers and were formulated to encourage

spontaneous and honest responses based on individual experiences. I used probes and follow-up questions when necessary (see Table 1).

Table 1

Relationship Between Research Questions and Interview Questions

Research Questions	Interview Questions
General Questions on Music Listening	Approximately how many hours do you spend listening to music? (Can you provide a range?)
	What modality do you use to access music? (Do you use more than one modality?)
	What genres of music do you enjoy listening to? (Can you be specific?)
	In what circumstances do you listen to music? (Can you be specific?)
	Do you have music playing before or during sleep? (Do you listen both before and during sleep?)
RQ1 What are the perceptions of MCC students (ages 18-24, not enrolled in music classes) on how music listening affects them while learning under stress?	Can you describe your music listening habits as part of your studying? Do you listen before, during, or after?)
	If you listen during studying, what function do you feel music listening serves while studying? (More than one function?)
	How do you feel that music listening affects you emotionally while studying? (Can you expand on this?)
	What role do you feel music listening serves while studying? (More than one role?)

RQ2 What are the perceptions of MCC Students (ages 18-24, not enrolled in music classes) of self-selected music listening to decrease their stress while studying?	How do you use music listening to cope with stress while studying? (Could you tell me a little more about that?) What influence do you feel music listening has on your stress levels while studying? (I hear you saying that music listening ____ your stress levels?) How important is mood or valence in your choice of pieces while studying? (Can you give me an example?) Do you often choose a piece that matches your mood or music that differs from your mood? (Can you elaborate? Is this effective?)
RQ3 What are the perceptions of MCC students (ages 18-24, not enrolled in music classes) of self-selected music listening to increase learning effectiveness?	Please explain how you feel that music listening affects your learning ability. (Do you feel that music listening increases learning effectiveness? How?) Do you feel that music listening decreases learning effectiveness? How?) Can you explain how music listening affects your ability to concentrate? (Does this happen consistently?) Can you describe how music listening affects your ability to retain information? (Is this reflected in your grades?) Are there other ways that you feel music listening affects learning effectiveness? (Please explain)
Questions about COVID-19	Did you use music listening as a coping strategy during the COVID-19 shutdown? (If so, how?)

	What role did music listening play in your ability to learn during the COVID 19 shutdown? (Can you elaborate?)

Interview questions correlate with the theory of emotional intelligence. Interview questions were used to specifically address domains of self-awareness and self-management using this theory. The first domain of the theory is self-awareness, and the competency is emotional self-awareness. In the semi-structured interviews, students answered questions about their emotions and their views on how music listening affected their emotions. Self-management, the second domain, includes emotional self-control and adaptability. The participants answered specific questions about music listening as an adaptive tool. Emotional Intelligence pertains to one's coping ability, strategies to deal with stress, perseverance during stress, and how one manages emotion. I referred to these topics during the formation of the interview questions.

Data Collection Strategies

Before collecting data, I received permission from the Walden Institutional Review Board (IRB) and IRB at the site. Strict procedures had to be in place before the community college would grant access to research participants. First, I submitted an application and related materials for approval by the Executive Director for Institutional Effectiveness to inform the college of the purpose, objectives, methods, and procedures used in the study. Second, I completed the necessary forms regarding human subjects and risks, including assurances that students would not be subjected to physical, psychological, sociological, or any other form of harm. The interview data were de-identified by an alphabetical marker randomly assigned to each interview so that there

could be no connections with students at the research site. The data will remain stored on a flash drive for five years in a secure location and then destroyed via a large shredder.

The semi-structured interviews were one-on-one rather than focus groups because some information was personal in nature. In an interview, students can convey their feelings expressively and reflectively (Palinkas et al., 2015). The interview process allowed me the opportunity to truly hear the students, gather rich data, and allow for a pleasant experience for the participants.

To collect the data necessary for this study, I conducted virtual semi-structured interviews considering COVID-19 precautions. Students who studied online during the pandemic were comfortable working with online conferencing software. I used the conferencing software Zoom provided by the college. The Zoom platform was accessed from the college website so that institutional safeguards, firewalls, and security precautions were in place to protect the recorded semi-structured interviews. I notified participants about the system requirements for IOS, iPadOS, and Android. Participants received an email about the system requirements for Windows and macOS. I asked students to interview in a quiet place with minimal distraction or background noise. I maintained best practices for conducting online semi-structured interviews, and students had to consent to have the audio part of the interview recorded. As the host, I admitted participants to the room one at a time using a passcode.

At the beginning of each interview, I reminded participants of the information contained in the consent form and reiterated my efforts to ensure confidentiality. Next, I read a scripted statement outlining the study's goals and reminded participants that the

audio portion of the semi-structured interviews would be recorded. Next, I asked the students for basic introductory information about themselves, i.e., year of college, major, and future goals. I included these questions to make students comfortable so they might be more forthcoming in their responses. Then, I asked the students semi-structured, open-ended questions as part of the interview protocol developed for this study. I listened intently while the student was speaking and responded only when necessary. All the interviews lasted under one hour.

I facilitated the interview process to ensure that participants could articulate their experiences expressively and meaningfully. Using probes during the semi-structured interviews was necessary to draw out more information or clarify a statement. Different probes are appropriate in specific situations, including attention probes, steering probes, confirmation probes, clarification probes, continuation probes, and sequence probes (Rubin & Rubin, 2012). I used more than one of these probes in the semi-structured interviews when it was necessary. I redirected the conversation if the student's response took the interview off track. At the same time, I remained open to changing the protocol slightly if I deemed it necessary or beneficial. I was also mindful of the agreed-upon time limit and strove to end the interview on time.

After the interview, I read another scripted conclusion statement thanking them for their time. I also asked the participants to agree to review an email in which I provided a summary of their responses to complete the member checks process. The goal was to document the essence and intent of the interviewee's responses clearly and accurately. The interview questions, the recorded responses, and the memos generated

were sufficient data collection instruments to address the research questions. I determined the sufficiency of data after eight semi-structured interviews. The students provided a wealth of information that I felt was sufficient to address the research questions.

Role of the Researcher

My role at the site is as a professor of music history. Students who have not taken my courses may be unfamiliar with me but may have seen me on campus. In addition, as the choir director and a club advisor, I am visible on campus at musical events. Students taking my courses were not included in the study as their class experiences might influence their responses. I also understand that students might feel an unbalanced perception of power due to my professional standing. Students often feel that professors evaluate them, and I made every effort to alleviate this perception (Rubin & Rubin, 2012).

Although the participants and I were not in the same room, it was essential to maintain a neutral interview atmosphere. I began the interview by assuring the participants that I am a doctoral student and that I am also part of a learning environment. I reminded them that the audio part of the interview was recording and waited until the participant was comfortable and ready before asking the questions. If I sensed that the participant was not engaged, I asked if they wanted a break or if they wanted to stop. I treated the participants respectfully, and they did not feel pressured at any time. It was essential to honor time constraints and agreed-upon time limits (Rubin & Rubin, 2012).

I made every effort to remove bias from the questions asked in the semi-structured interviews. I used a blank wall when conducting interviews as my office/home

contains music-related wall decor. In addition, I was careful to monitor my reactions during responses and attempted to maintain neutrality to avoid potential bias. The data needed to reflect the students' perceptions organically and without any undue influence on the data.

Data Analysis

As the researcher, I aimed to gather student perceptions on music listening and stress while learning. The goal was to see, hear, and interpret findings and then assign symbolic meaning to the data (Saldana, 2016). Before data analysis, I had to be organized and have the necessary data collection, organization, and storage systems in place. I followed the same protocol for each interview I conducted.

After each interview, the Zoom transcriptions were saved to my computer. I coded the data with assistance from the ATLAS.ti22 Computer Assisted Qualitative Data Analysis Software. Using the transcribed data, I started by identifying *in vivo* codes. Inductive in vivo coding utilizes the participant's exact words verbatim in the initial coding process. In vivo coding was helpful as I asked the participants to express their feelings regarding music, stress, and learning. As previously mentioned in the literature, music listening can be a highly charged emotional experience, so this coding method was valid. The symbolic meaning translates to a code used to represent the essence of the transcribed language. I created codes by identifying phrases or significant statements that stood out in the data and noting how frequently an idea recurred. Codes must accurately depict the essence and entirety of the text (Saldana, 2016).

Next, I used second-cycle coding to reexamine and reorganize the initial codes (Saldana, 2016). The Atlas.ti22 program allowed the creation of code groups that could later be merged to combine or reduce data. High-frequency codes also could be split into further groupings if necessary. Next, I examined the codes resulting from the initial analysis and identified patterns. Then, I used pattern coding to convert the codes into overarching phrases that identify the emergent categories or statement clusters. Additionally, this process helped sort out data unrelated to the research question.

A category is a unit of information identified by the researcher after coding (Creswell, 2007). Categories provide a deeper understanding (Corbin & Strauss, 2014). The process of creating categories involves addressing the ways that the codes relate to each other. I coded groupings or families by combining codes with shared characteristics or ideas (Saldana, 2016). I also looked for codes and subcodes within each category, keeping in mind that categories can become more abstract or conceptual in nature (Saldana, 2016). Then, I clustered these phrases into groups and identified them with a key phrase to serve as an organizing device which reduced the data to fifteen code groups or categories (Percy et al., 2015). Categories should be related to the research questions, so I separated outliers. Finally, I categorized using predetermined a priori codes based on the elements of the conceptual framework self-awareness, self-management, social awareness, and relationship management.

The last step in the data analysis process is to acknowledge discrepant cases. Outliers or discrepant cases may be evident in the data. Outliers and discrepant cases refer to data that appears incongruous with the identified codes or categories. Outliers

may take the form of disconfirming evidence (Ravitch & Carl, 2016). Discrepant cases should not be excluded but used to challenge predetermined ideas. For example, while studying student perceptions, it was not likely that all students would think alike or respond to stress similarly. These cases can be helpful in a reevaluation of the data and the discovery of additional codes that may have been overlooked. It was crucial to code and evaluate all the data, not only easily identifiable and concurring data. The acknowledgment of outliers is crucial in avoiding confirmation bias and is part of the rigor required in all academic research (Creswell, 2007).

Ethical Issues

Confidentiality of the Data

All data relating to the study were stored at my home. I had a list of participants and their contact information on my personal laptop. Student names were replaced with alphanumerical codes that were assigned to each transcript. The recorded semi-structured interviews were stored as MP4s on my computer. Transcriptions were downloaded and stored securely. I revised and corrected the raw transcriptions provided by the software if semantic errors were identified. All information was backed up onto a flash drive, locked in a secure location along with my memos and codebook, and kept for five years. No data from this study will be distributed or used for future studies.

Researcher-Participant Relationship

As a professor at the site, I needed to make every effort to establish the appropriate researcher-participant relationship. For the study to have credibility and dependability, I was aware of several challenges, one of which is social desirability bias.

Bias can mean several things, but in this case, it involves misrepresenting the participants' actual reality. It is human nature to want to present oneself in the best possible light, and participants may tend to color, exaggerate, or alter the truth (Bergen & Labonte, 2020). This issue was critical to avoid, as I was asking participants to be honest about their stress levels and coping strategies. Since the semi-structured interviews were one-on-one, I avoided having participants influenced by widely held beliefs or the opinions of others. If social desirability was an issue in an interview, I used a probe or redirected the conversation. The participants were not students in my courses, so this should have avoided students giving the responses they thought I was seeking. My current students were excluded, so failure to participate in the study would not impact my relationship with them. I invited students to participate via college platforms, so coercion was not an issue. The option to withdraw from the study was in the consent form, so students did not fear retaliation or falling out of favor if they changed their minds about participating. Students might perceive themselves as subordinates as I am a professor at the college, so I was careful to establish the right atmosphere and tone in the semi-structured interviews to avoid social desirability bias. I asked all the participants the same questions and used probes, when necessary, based on the participant's level of comfort. It was essential that the students felt they could trust me so that their responses would accurately reflect their perceptions of the subject.

Ensuring Trustworthiness

As a qualitative researcher, I must adhere to strict standards and procedures to ensure credibility and dependability. These standards and procedures create alignment

between my research goals, research questions, and the context of my project study. My goal was to meet the standards of rigor for a published study.

Credibility Strategies

I used a member checks process to ensure credibility, dependability and to avoid bias. Member checks are a valuable tool to ensure the credibility of the data. Also referred to as respondent validation, this technique allows the researcher to check in with the participants to ensure that he/she has accurately recorded and interpreted their statements (Ravitch & Carl, 2016, p.197). I created a detailed summary of each interview and emailed it to the participants. Participants reviewed the transcripts to ensure that the material reflected their perceptions accurately. Additionally, they had the opportunity to add information they deemed necessary or identify a problem. Finally, I asked the students to clarify information and challenge any biases they felt might be present. Avoiding bias can ensure the credibility of my findings within the research community and with the participants themselves. Since the students invested their time and energy in assisting me with the study, it was vital for them to feel that I collected and interpreted their responses correctly. Therefore, the participants played a significant role in determining accuracy and giving critical feedback if necessary (Creswell, 2007). Additionally, the member check/ peer review process allowed me to revisit the data and immerse myself in the material. I also considered if there was collected information that did not relate to my research questions. The material was not deleted but noted and set aside. I also secured a published Ed.D professor as a peer reviewer to help ensure credibility.

Dependability Strategies

Dependability refers to the stability of the data (Ravitch & Carl, 2016). To ensure dependability, this study had to have alignment of the title, purpose, problem, conceptual framework and research questions. Every step of the process needed to be logically and transparently constructed pertaining to who, what, when, where, and how (Newman & Covrig, 2013, p. 72). To answer the research questions in this study, I chose the basic qualitative design. The purpose and problem are reflected in the title and the data collected, and the collection method is aligned with this design. The research questions are aligned with qualitative interview protocols and the conceptual framework. Creating a logical connection between these stages creates consistency, which is also essential for trustworthiness in published studies (Ilyana, 2022). Reporting any inconsistencies in the process is also vital for transparency, such as identifying bias.

Avoiding Bias

As the researcher, I had to avoid biases affecting my ability to conduct this study accurately. I needed to monitor any personal feelings during the interview and coding processes. I use music to alleviate stress, and I concede this. I was aware of a priori assumptions about how the students would respond to the questions (Chenail, 2011). I also strove to avoid confirmation bias which pertains to the tendency to retain an accepted explanation or theory on the subject. Confirmation bias occurs when researchers lean toward confirming results already stated in the literature rather than reporting contradictory evidence (McSweeney, 2021). I was prepared to create results other than the results I anticipated. I avoided the tendency to reject outliers or results that were not

in keeping with the majority of the data and avoided preference bias. Preference bias occurs when the study's results openly reflect the researcher's or other stakeholders' preferences (Wilholt, 2008). I strove to limit or exclude bias from the research process as much as possible to ensure credibility and dependability.

Data Analysis Results

Qualitative data analysis is useful to gain insight into participants' thoughts and experiences. The goal is to collect, examine and interpret the data and use the resulting information to answer the research questions. Creswell (2007) stated that qualitative researchers must organize the data for analysis, reduce the data via coding, categories, and themes and then choose the best format to represent the data through tables, figures, graphics, and discussion. This section summarizes how I followed these steps in this study.

I collected the data for this study via semi-structured interviews on ZOOM. I interviewed eight community college students between the ages of 18-24, and each interview lasted for under one hour. I randomly chose an alphanumeric symbol to correspond with the interview and saved it in a dedicated folder on my computer. Each folder contained the audio portion of the semi-structured interviews in the form of an MP4, and the transcription was saved as a closed caption text document. I saved the video portion even though the participants' cameras were turned off per IRB requirements. All participant folders were also saved to a flash drive that was stored securely. Table 2 depicts the specific student population included in this study.

Table 2

Student Identifier, Age, and Gender

Alphanumeric Marker	Student Age	Gender
A	22 Years Old	Cis-Gender
B	21 Years Old	Male
C	20 Years Old	Female
D	21 Years Old	Male
E	20 Years Old	Male
F	23 Years Old	Male
G	18 Years Old	Non-Binary
H	21 Years Old	Male

The next step was to check the transcriptions for errors to ensure accuracy. I simultaneously listened to the interview audio recording while reading the transcription. If there was an error, misspelling, or another issue, I corrected it while the interview was still fresh in my mind. I emailed each participant the same day with a summary of the interview. Participants checked the summary for errors, misunderstood information, misrepresented data, and any perceived bias. I did not proceed to the coding process until I received an email back from the participant confirming the data was correct or indicating what needed correcting. The participants understood before the interview that this was a vital part of the member checks process. Two students indicated that minor changes to their responses were necessary. I made the changes immediately.

At this point, I imported the data into the Atlas.ti22 program. I purchased a software license before any data collection and watched several training videos provided by Atlas.ti. Next, I created a project in the software, and the semi-structured interviews

were loaded into Atlas.ti22 as documents. Before starting the coding process, I created memos in the program, which included my thoughts, reactions, and any salient information I wanted to record about each interview.

I then began the in vivo coding process. The program allows the user to highlight words, phrases, or sentences and copy the data into a code folder. Atlas.ti22 allows the user to click on codes during the analysis process and see where the data was retrieved from and from which participant. In addition to the Atlas.ti22 coding program, I printed each code on a small piece of paper to better visualize the data. This process allowed me to see all the codes and organize them into what I felt were the appropriate group. I could then examine each group to determine a code group or category. I entered each group into the Code Group Manager in Atlas.ti22 to cross-reference codes and ensure I had not used the same code twice. This step also allowed me to export the codebook for my reviewer and my Chair. I subsequently used the categories to develop a theme to help answer the research questions.

Findings

The problem that prompted this study is that traditional-age community college students experience stress levels that may interfere with their ability to complete their programs of study. The research questions under investigation are:

RQ1: What are perceptions of MCC students between 18 and 24 who are not enrolled in music classes in terms of how music listening affects them while learning under stress?

RQ2: What are perceptions of MCC students between 18 and 24 who are not enrolled in music classes involving self-selected music listening to decrease their stress while studying?

RQ3: What are perceptions of MCC students between 18 and 24 who are not enrolled in music classes?

From the eight transcribed semi-structured interviews, I identified 524 in vivo quotations that I used to create fourteen categories, which I reduced to three overarching themes. The data collected became part of a cyclical process of using the existing data to create meaning.

Codes

I identified 524 quotes that became the initial in vivo codes stored in the codebook in Atlas.ti22. To visualize the data, I used the Word Cloud, Named Entity Recognition, Sentiment Analysis, and Concepts features in Atlas.ti22. The Word Cloud option allows the researcher to see the words used by the participant and how many times each word appears in the text. The Word Cloud feature helped identify code groups. I also used the Concepts feature to help with the creation of categories. I did not find the Names Entity Recognition and Sentiment Analysis helpful. Saldana (2016) said while coding, one must be organized, creative, have perseverance, deal with ambiguity, and be rigorously ethical, creative, and flexible. I had to decide which features of the Atlas.ti22 would work for me and which would not. It was necessary to let go of a dedication to using the program solely for all coding purposes. I also had to accept that this would be an iterative process.

On average, the students listened to between two and fifteen hours of music daily for entertainment purposes. They listened predominately on their phones or computers using Spotify or YouTube. However, students also reported listening to music in the car, at work, at home during leisure time, and while doing schoolwork. Students often used earbuds, headphones, or Bluetooth speakers.

Pertaining to genre, most students had a pre-set playlist they utilized. The students chose jazz, rap, folk, classical, funk rock, classic rock, electronic dance music, ethnic music, hair metal, and gaming music. Two students said that their genre choice was dependent on their mood, and six students said that they used a random playlist. One student reported that he/she chose the genre based on which subject he/she was studying.

Two students mentioned that they often listened to lo-fi music while studying. I was unfamiliar with this genre, so I needed to find information. Lo-fi stands for low fidelity, which is the opposite of high fidelity. Lo-fi is not so much a genre as it is a reference to the sound quality of the pieces. Newton (2016) said that in lo-fi music mistakes, distortion and other spontaneous sounds are considered valuable. Sounds that would otherwise be edited out in high-fi are left untouched. Clevenger and Rick (2021) said unedited songs allow the listener to experience the music as it was created and experience it as the musicians themselves did in the creation process. The music lacks the sterilized perfection that sound engineering produces and therefore is more natural. Newton (2016) said this unpolished form of music is often used as background sound which is why it may serve a purpose for students while studying.

One code emerged about lyrics that was not part of the interview questions. This topic emerged organically during the semi-structured interviews. Three students reported that they preferred music without lyrics while studying. Two stated that it depended on whether the subject they were working on came easily to them or was difficult. Lyrics interfered with concentration for some students but were not a problem for others.

The participants unanimously stated that studying during the Covid-19 pandemic was a challenge. Some adapted to the online environment and did well, while others fell behind and shut down. One participant thrived while learning at home and felt he had more time to listen to music and connect with friends. Others were incredibly stressed and worried about how the pandemic would affect them and their families. Student C said that "life was changed in a dramatic way," and they felt depressed. The same participant said that the "line was blurred between where you lived and worked." Student A stated that their "stress levels went berserk," and it was "really tough to learn." Student A also stated that they used music to "forget what was going on in the world." Music listening was a resource that students utilized to manage their emotions and deal with stress while learning during this challenging time. Students are still dealing with the consequences of COVID-19 in their personal and educational lives.

Categories

After examining the codes both on paper and in Atlas.ti22, I created code groups or categories based on patterns in the data and a priori codes. The categories entertainment, sleep, stress, genre preference, learning during COVID-19, and learning

effectiveness were a priori as they flowed from the research questions. The category pertaining to lyrics came from the transcribed data. Student A stated, “I’m attached to the sound, not the lyrics.” Student G stated, “I listen to songs without lyrics, so I don’t think about the words.” Student E said, “I don’t really work that well with pure silence” and “I function better with some sort of background noise” which contributed to the creation of the category of background sound. The categories negative and positive emotion were the result of quotes like Student F who said, “I’m trying to forget something that’s going on or cope with it” and Student D’s quote “ It brings out all the positivity of the moment.” Student B said, “I need to deal with my mood before starting to work” and Student G said, “It regulates your emotion and keeps you calm” which prompted the creation of the category on mood. The motivation category stemmed from quotes like “Sometimes it’s hard to have the motivation to study and stuff” from Student C. Finally, quotes related to focus and concentration included Student D’s comment, “ It keeps my brain from getting distracted by other things,” and Student H’s statement that “music keeps me on track.” These categories and the frequency in the data are depicted in Table 3.

Table 3

Category Frequency

Category	Frequency
Entertainment	10
Sleep	10
Lyrics	15
Background Sound	19
Negative Emotion	23
Mood	24
Motivation	34
Positive Emotion	35
Stress	41

Calmness	43
Genre Preference	45
Learning During Covid 19	49
Learning Effectiveness	52
Focus and Concentration	75

Themes

The term modulation refers to a process of change. In musical terminology, modulation refers to a change of key, sometimes altering the mood of the piece. A musical modulation can be temporary, or it may be a permanent change. Modulation may be from a major key to a minor key or the other way around. Composers often use modulation to create interest in the piece and heighten the emotion. This term is appropriate to describe the transition reported by the participants regarding how music listening affects them while learning under stress, increasing learning effectiveness. Table 4 depicts the progression from the categories identified from the data to the corresponding areas of modulation.

Table 4

Categories and Themes

Categories	Themes
Entertainment	Physical Modulation
Genre Preference	
Stress	
Calmness	
Sleep	
Mood Regulation	Emotional Modulation
Positive Emotion	
Negative Emotion	
Lyrics	

Background Sound
Motivation
Focus and Concentration
Learning Effectiveness
Learning During Covid 19 Pandemic

Mental Modulation

Music listening can cause physical modulation in preparing to learn. Six participants reported that music listening served to create a sense of calmness. Student C stated that music listening "creates a safe space where you can calm down." Student H stated, "Music can help my brain stay off the stress." All eight participants reported that music alleviates, mitigates, and soothes stress responses. Student H also said that while listening to music, "the stress was still there, but not as crippling." All the participants in the study referred to music listening as a way to control, decrease or deal with stress while studying. Four students use music listening to deal with stress unrelated to studying as well. Seven students reported listening to some form of sound while going to sleep. Two participants used music and set a timer so that it would turn off after a certain amount of time.

Music listening is a powerful tool to modulate emotion and mitigate stress. The students reported that it creates the atmosphere and mood necessary to do schoolwork. Many participants used music to create a mood or "get in the right headspace" to study. Student B referred to music listening as an emotional "palette cleanser," and Student F referred to it as "a blanket." Student G stated, "music regulates your emotion and keeps you calm." Music also was soothing and created a feeling of consolation and balance for the participants. Student G reported that music helps when they are "anxious and overthinking things." They either chose the music that matched their mood or music to

get them into the desired mood for learning. Student B said that it was crucial to use music in "dealing with my mood before starting to work." The music served as an agent to create a happy mood for six participants. Student D reported that music can "amplify a good mood" and "take all other moods away." It can elevate mood and make students feel "grounded." The data support that music can put students in a good mood that is conducive to studying but also modulate them out of a bad mood into a more productive and positive mood. Music listening can help students eliminate frustration. Student A said, "when I am in a depressive mood, it is harder to study." The same student stated that when she was "down," she would choose contrasting or positive music to improve her mood. Student F stated that music made them feel like they "were not alone," as was discussed in the literature review section.

The students also indicated that music listening was a mental modulator, increasing focus and concentration. Student D said music "keeps me from getting distracted and thinking about other things." Student B that music allows them to "hone in" and focus on what they are doing and it helped them stay "in the zone" and "ignore all other thoughts." Student H said that the music "keeps the other parts of my brain occupied," and Student A said that they keep the music playing but "not enough that it will distract." Student B stated that music "creates a wash" and creates a working environment conducive to learning and studying. Students reported using music listening as a motivator while studying. Student D said, "it's really a huge motivator and does really help me focus." Student D also said, "I am able to accomplish more in less time." Student E stated that music listening helps when "writing a paper that I've been dreading

to do." Student D said, "music sets the pace," "I can bob my head, and it makes me want to get going" and "I feel like my hand synchs with the motions, like the beat."

Seven participants said music helped them get in the right headspace to push through their work. Four students said that other thoughts could bubble up without music and interfere with concentration. Other participants related that music listening aided in learning effectiveness. Student C said, "I process things better when I have music." Student F stated that music listening "helps me absorb the knowledge" and Student G said that it "helps me gain better memory." Student F stated, "I would not absorb it nearly as efficiently without music." Student G reported, "it really does improve memorization and my ability to remember things." Finally, Student A said that music listening "ensures that things stay in my head."

The themes created from the data involved a process of modulation. A word or phrase represents categories, but a theme is a sentence or phrase describing a more in-depth meaning that is generalizable (Saldana, 2016). The themes derived from the data reflect that students often use music listening as a tool for learning modulation. The findings of this study show that students often modulate from one state to another to aid the ability to study, learn and complete assignments. I used the data from the categories to develop themes that are significant aggregate statements (Creswell, 2007). The data revealed that the participants in the study used music listening to modulate into a learning mode using a combination of three distinct modes, physical modulation, emotional modulation, and mental modulation. The participants all indicated that music listening helps modulate in ways that could enhance the studying and learning process.

Discrepant Cases

Part of the rigor required for doctoral work is examining and acknowledging outliers or discrepant cases. Creswell (2007) warns that researchers must resist the tendency or bias toward confirmation. In this study, two participants contributed information that qualifies as outliers. Student D said that they listened to religious podcasts instead of music while studying. Student B said he often had no music playing when he started to do his work but would turn it on once he got going. Student B also reported that deciding whether to play music while studying was dependent on how difficult the subject was for him. If it was a subject that came easily to him, he could play music, but if it was a difficult subject, he would not. Student E reported that music with lyrics could cause a distraction while studying and that, at times, they preferred instrumental music.

Evidence of Quality

In this section, I discuss strategies used in this study to ensure validity and reliability. Validity and reliability contribute to the overall trustworthiness of the study (Creswell, 2007). Included in this study is a detailed summary of the steps taken to ensure that the data collected was accurate regarding the collection, interpretation, and representation of the participants' statements. I had to be self-critical and follow the steps as articulated in the proposal to maintain integrity. I made every attempt to monitor reflexivity and objectively deal with challenges. I used several methods in this study to underscore reliability. I used member checking to ensure that the recorded and transcribed data was in keeping with the participants' statements. Each participant

reviewed an email summary of the recorded transcription and had the opportunity to make additions, deletions, or clarifications. I asked students to identify any biases that they perceived might be present. I also used a peer reviewer whose task was to review the data, function as a devil's advocate and hold me accountable for data collection, interpretation, and reporting (Creswell, 2007). The reviewer was also a community college professor, so she had a unique insight into students and could check for credibility. Finally, I kept a record of all discrepant cases or outliers and disclosed them in this paper. I have also disclosed unanticipated codes and categories discovered in the data. Through these means, I endeavored to meet the standard for rigor regarding trustworthiness, validity, and reliability.

Discussion of Findings

The problem addressed in this study is that some traditional-age students (ages 18-24) at MCC may be experiencing stress levels that impede their ability to learn. The purpose of this qualitative study was to examine student perceptions of self-selected music listening as a strategy for learning under stress. The problem of overall student stress cannot be solved in this study. A certain amount of stress is healthy and can serve as a motivator in many circumstances. Stress becomes an issue when it is unmanageable or impedes students from meeting their academic goals. This study establishes that music listening is one strategy students identify to deal with stress while studying and increase learning effectiveness. Students routinely use music for entertainment and before sleep. Their choice of genre is dependent on personal taste and mood. Students use music listening for modulation to facilitate learning. Music can serve as a tool to help students

deal with negative moods, which can interfere with learning. Creating a positive mood can facilitate the learning process and function as a motivator.

They also often use music as background sound while studying and doing school-related work. Almost all the students in the study used music and background sound while studying. The music serves to drown out noises or distractions within their homes or outside the home. Students reported that music listening could create a sense of calm, alleviating stress. Participants stated that music listening serves to increase motivation. It can influence learning effectiveness by increasing concentration and focus. Music listening also served as a distraction and coping mechanism while learning during the COVID-19 pandemic.

The findings in this study relate to the research questions via the themes apparent after examining the data. MCC students use music listening consistently for emotional modulation. Music listening can change mood and create an emotional state conducive to learning. They also use music as a means of entertainment and relaxation while learning under stress. Musical genre choices are individual and not universal. Genre can affect mood, which can aid or hinder learning.

It was important for the students to have the means to regulate and modulate stress during the studying process. As evident in the data, music listening can create a sense of calmness that can be both emotional and physical. Students reported that music listening was an important strategy to mitigate stress to get in the correct frame of mind to learn.

Data indicated that music listening positively affected some students' ability to learn and increased learning effectiveness. Music listening also served to increase focus and concentration. Music playing masked background noises allowing students to hone in on academic tasks. Students also attributed greater ability to memorize and retain information to music listening.

In relation to the literature, the findings of this study pertain to music listening as a vehicle for modulation. The first type of modulation is physical modulation. The participants confirmed the data regarding music listening, relaxation, and sleep. Literature indicates that insufficient sleep can result in a lack of attention and lower grades. Most students listened to some kind of sound before sleep but not always music. Music listening may lead to the relaxation of the body's muscles and provide a distraction from thoughts that may interfere with sleep (Harmat et al., 2008). Listening to music decreases activity in the sympathetic nervous system, affecting relaxation and sleep (Harmat et al., 2008). Music listening can also affect the quality of sleep. Another key code that recurred in the data pertained to calmness. The participants reported that music listening often created this state. This finding corresponds to the literature on music listening and its influence on blood pressure, heart rate, and other processes in the body (Hu et al., 2021). The inability to relax and sleep can affect the immune system, behavior, mood, and emotional regulation (Gao et al., 2020).

For the second area of modulation for students, emotional modulation, the literature includes evidence that music listening can cause chemical changes in the brain associated with emotion and mood (Chanda & Levitin, 2013). Music listening often

results in a feeling of satisfaction attributed to the release of opioids and dopamine within the midbrain. The students reported that they used music listening consistently while studying. The tendency to repeat musical experiences is also associated with opioid peptides in the brain (Chanda & Levitin, 2013). Emotional reactions are also related to regional cerebral blood flow increases in the mesocorticolimbic system. Impulses travel via the auditory cortex, are processed by the limbic system, and result in emotional responses (Pan et al., 2020). The brain then releases neurotransmitters that affect mood. Music listening can create a sense of social affiliation. One can experience affiliation while listening to music as part of a group or alone (Chanda & Levitin, 2013). Emotional contagion occurs when one associates with the emotion created by the singer or performer (Larwood & Dingle, 2021). All the participants cited music as a means for emotional regulation; one student referred to social affiliation and emotional contagion. Social affiliation and other effective states created by music can also reduce stress (Chanda & Levitin, 2013). Music listening can also reduce loneliness and function as a surrogate friend (Schafer et al., 2020).

Music listening can help students modulate mood and stress. Students modulate mood by choosing mood-congruent music or mood-incongruent music (Schafer et al., 2020). The participants reported choosing mood-congruent music, but several also chose mood-incongruent music to improve their mood in preparation for studying. Participants also used music for mood repair; they reported a connection between mood repair, self-selection, and genre. Pertaining to stress, all the participants reported using music listening to regulate stress. The literature underscores the fact that music listening has

many psychophysiological benefits (Linnemann et al., 2016). Music listening can affect stress levels by reducing blood pressure, heart rate, body temperature, respiration rate, and sensitivity to pain (Mojtabavi et al., 2020). Students reported turning to music listening for a sense of enjoyment and emotional support that satisfies social and emotional needs (Gurgen, 2016).

For the last area of modulation, mental modulation, participants stated that stress had a negative influence on recall, memory retrieval, and the quality of memories. Students indicated that music listening helped in this area, with a few exceptions. The literature states that music listening can increase the ability to focus, reduce distraction from background noises, improve concentration and reduce stressors that can interfere with learning (Lemaire, 2019). In addition, listening to music can increase a sense of arousal that can aid learning (Lemaire, 2019). Participants used music to increase focus and concentration, decrease boredom and increase motivation. Gonzalez and Aiello (2019) said music can create a happy emotional state, resulting in an improved ability to focus on schoolwork.

Regarding valence and tempo, this choice is particular to each student and is not generalizable. Genre preference also corresponds to personal choice. The interview data showed that genre choice is highly individual but that students sometimes make conscious decisions about genre depending on their mood and the subject they are studying. Furthermore, the literature confirms that states of arousal and valence depend on preference and the listener's personality (Belfi, 2019).

Most students indicated that completing their academic work was difficult during the pandemic and that music listening helped with fearful emotions about the COVID-19 virus. Student B reported that he used the time during the shutdown to reconnect with friends and listen to "a ton" of music.

The theory of emotional intelligence by Goleman was the conceptual framework for this study. There are four domains in relation to the theory. The four domains are self-awareness, self-management, social awareness, and relationship management (Goleman & Boyatzis, 2017). I used these domains to inform the research and as the basis for the research questions.

Table 5 depicts the connection between the categories and themes I identified in the interview data and Goleman's theory. The first column shows the categories derived directly from the interview questions and the student quotes from the semi-structured interviews. The second column shows the themes corresponding with the categories. Finally, the third column depicts the connection between the categories, themes, and specific domains of the theory of emotional intelligence.

Table 5

Relationship Between Codes, Categories, and Conceptual Framework

Categories	Themes	Domains
Positive Emotion Negative Emotion Mood Genre Preference Background Sound	Emotional Modulation	Self-Awareness

Calmness Stress Sleep	Physical Modulation	Self-Management
Learning Effectiveness Focus and Concentration Motivation Lyrics	Mental Modulation	Self-Management
Learning During Covid 19		Social Awareness Relationship Management

Physical, emotional, and mental modulation depends on the individual's ability to be aware of how they are feeling in the three areas and make conscious choices to make a change if necessary. Whether one can do this effectively corresponds to that person's emotional intelligence.

Conclusion

In this study, I used a basic qualitative design to explore MCC students' perceptions regarding music listening as a tool to mitigate stress and increase learning effectiveness. I used a purposeful sample of eight student participants and collected data via semi-structured Zoom interviews. I outlined the methodology used to collect, interpret, and code interview data guided by the conceptual framework of emotional intelligence. Results are depicted both in writing and table form. Codes, categories, and three themes were developed to address research questions. Participants confirmed they often feel stress that can potentially interfere with their ability to succeed academically, and music listening is an effective method to mitigate stress while studying. All eight participants expressed that learning under stress is difficult. Findings indicated that students often use music listening to modulate emotionally, physically, and mentally to a

state that is conducive to learning. Findings of this study are congruent with literature involving music listening, stress management, and learning ability under stress.

Section 3: The Project

Based on my findings, I decided that a professional development program for MCC faculty members is the most appropriate deliverable for this study. Mundy et al. (2012) said the sharing of best practices and having readily available and ongoing professional development is vital to creating a vibrant learning environment for students. Professors can make their courses more effective and meaningful with active learning and real-world practices. They also need to frequently update their knowledge of the latest technologies and learning theories. In this section, I explain the rationale for the project and outline a narrative of the implementation of the 3-day course. I provide objectives, learning modules, timelines, and evaluation process. I conclude the section by discussing implications for positive social change.

Rationale

This study involved student perceptions of music listening as a tool to mitigate stress and facilitate learning and learning effectiveness. The problem of student stress cannot be solved via this seminar, but this professional development course involves educating faculty regarding student stress and their use of music listening to manage stress. Faculty can interpret students' music listening habits as disruptive, distracting, evasive, and rude. Understanding music listening behaviors and benefits to students may foster a sensitivity toward these actions and their purpose.

Currently, enrollment at MCC is declining, in large part due to the COVID-19 pandemic. Since 2020, the college has worked to create recruitment programs to attract

students back to campus. The administration has also striven to support programs to foster retention and completion. Many colleges, including MCC, have had to bolster psychological services on campus to meet students' needs. The COVID-19 pandemic impacted college environments pervasively and still affects some educational institutions. It has caused increased stress. It is more important than ever that students develop constructive self-help strategies to deal effectively with stress to complete their programs of study and meet their educational goals. Data from this study involves personal perceptions of currently enrolled community college students at MCC. Faculty, administrators, and staff need to understand their perceptions regarding student stress and stress management. Campus professionals may benefit from a greater understanding of student strategies.

Review of the Literature

A literature review is helpful to frame the project within the larger body of research. Search keywords were: *faculty development in community colleges*, *higher education and COVID-19*, *music as a transitional or modulating tool into study mode*, *college students' study habits*, and *background sound*. I also substituted *higher education* for *college*, *change* for *modulating*, *studying* for *studying mode*, and *background music* for *background sound*. I searched for articles in Academic Search Complete, Education Source, Eric, Sage, APA PsychINFO and Google Scholar.

Faculty Development in Community Colleges

Most if not all two and four-year colleges require faculty to participate annually in faculty development courses. Many colleges require this as a condition for continued

employment or promotion. These programs aim to provide faculty with information about significant trends in higher education and encourage best practices regarding instruction, curriculum development, and technology. Strickland-Davis et al. (2019) said community college administrators are under significant pressure to demonstrate their efforts to provide training opportunities for faculty. Faculty development courses are often a requirement for reaccreditation. Development courses should focus on meeting needs of faculty and increasing efficacy with a mind to student success. Development courses often inspire faculty to try innovative approaches involving their subject matter, and this can in turn be used to replace teaching styles that are outdated and ineffective (Strickland-Davis et al., 2019). Greater efficacy can increase confidence, which positively affects learning environments. D'Amico et al. (2017) said goals should be to create a climate that fosters and encourages faculty development, the existence of a formalized, structured development program and activities, a connection between faculty development and the reward structure, faculty ownership, colleague support for investments in teaching, and a belief that good teaching is valued by administrators. Programming should be well-presented, timely, and relevant.

Rapidly developing classroom technology requires almost continual training for faculty to stay current. The MCC student body is increasingly adept in technology, and community colleges must ensure faculty possess the knowledge and skills to meet their needs. The COVID-19 pandemic forced colleges to train their faculty within a small window of time to teach remotely, and there may be gaps in knowledge regarding the distance learning environment. Gao et al. (2022) said proficiency in the classroom does

not always translate to proficiency in the online classroom. Faculty must also ensure their courses are ADA-compliant and accessible to all learners. They must have opportunities to increase their knowledge of distance learning and have daily access to support systems at schools.

Quality faculty development seminars should be learner-based (Bedford et al., 2021). Seminars that are learner-based have better results than those that are lecture-based. The more engaging and interactive the seminar, the greater chance for retention and implementation. Workshops of this type are also meaningful if there is a connection between personal teaching goals and institutional goals, for example student retention and student success (Bedford et al., 2021). Purposeful instruction coupled with engaging and interactive dialogue can result in changes in attitudes and renewed enthusiasm for teaching. Faculty development seminars provide for interdepartmental connections that can foster institutional comradery.

Higher Education and COVID-19

The COVID-19 pandemic disrupted higher education worldwide. Colleges and universities in 185 countries closed in April 2020 (Marinoni et al., 2020). Colleges and students had to acclimate rapidly to online and distance learning environments. Garcia-Morales et al. (2021) said the pandemic forced a shift from traditional in-person teaching model to a highly digitized educational system. This created challenges for everyone in college communities. Although online education was already in use at colleges and universities, it was an option. Transitioning to a sole distance learning model caused stress for many students unfamiliar with this learning environment. In addition, they

experienced technological barriers that led to unequal access to education. They had to not only adapt to a new source of learning but also alter how they received and absorbed knowledge. As I reported in this study, participants experienced stress, isolation, and depression, and some withdrew from college altogether. Going forward, college faculty, staff, and administration should be aware that students may still be adapting to online learning, need support and training, and may have to reenroll in courses they withdrew from or failed during the pandemic. Music listening was one activity that helped students deal with the pandemic and achieve a sense of wellbeing. Finnerty et al. (2021) said 92% of participants in their study on student behaviors during the pandemic identified music listening as a coping strategy.

Music as a Tool to Modulate to Study Mode

McConnell and Shore (2011) investigated the impact of musical arousal on visual attention while learning. In their study, 24 undergraduate university students listened to music containing changes in valance and arousal and monitored the influence on visual attention. They found that happy pieces had a positive valance, and high arousal affected visual attention. Pieces with low arousal and neutral valence did not affect visual attention. Balch and Lewis (1996) investigated the influences of timbre, tempo, and selection on changes in music-dependent memory with 168 undergraduate university students. They found that tempo created the most significant changes, but alterations in timbre and selection had no significant impact. Goltz and Sadakata (2021) said the impact of background music is highly individualized, as I found in my study. Using an online questionnaire completed by 140 participants, they corroborated my findings that the use

of background music can be dependent upon the task's difficulty. Additionally, they reported that the use of background music while performing cognitive tasks could differ with age. A lack of literature suggests the need for further investigation on this topic.

College Student Study Habits

Music listening is the most prevalent activity that students set time aside to participate in according to the Lamont et al. (2003) study involving 1679 participants. Whittinghill et al. (2021) said that music listening plays a significant role in students' lives and is one of the activities that the 593 college students in their study engaged in while studying. Calderwood et al. (2014) examined students' multi-tasking behaviors in 60 undergraduate students while studying. They monitored students for three hours and found that, on average, students were distracted for twenty-five minutes. In college students particularly, cell phone use was a factor. Calderwood et al. (2014) hypothesized that the motivation for multi-tasking fills an emotional need consistent with my findings. They reported that of the multi-tasking activities, students used music listening at a high frequency. They observed students studying for 180 minutes, and the mean time spent listening to music was 72.74 with a standard deviation of 72.98. The researchers investigated why students engaged in multi-tasking activities and concluded that it pertained to motivation, fatigue, and mood regulation. Efficacy regarding the specific work students were doing also contributed to the behavior. These findings coincide with my data regarding the motivations behind music listening in college students.

College Students Studying and Background Sound

In this study, 87% of the student participants indicated that they used music listening as background sound while studying. They reported that the music served to drown out other noises as a motivator and help to regulate their mood in preparation for learning. There have been investigations into whether background music affects long-term episodic memory. For example, Lemaire (2019) had 35 university students listen to various background sounds and then measured students' ability to recall word lists. The results indicated that stimulating music had a marginal influence on memory (Lemaire, 2019). Other types of music did not have a measurable impact. The participants in my study reported that self-selection was crucial to their ability to concentrate, memorize and learn. In this study, one participant stated that the background music made his writing hand synch to the music and kept him motivated while studying. There is some research on this topic in the literature. Kuribayashi and Nittono (2015) examined the influence of musical tempo on behavior pace in 44 undergraduate students while completing motor tasks. They found that an acceleration of motor movement occurred when the tempo changed from slower to faster. However, there was no change in motor pace when the tempo changed from faster to slower. The researchers partially attributed this to mood. Kiss and Linnell (2020) looked at the influence of background music on task focus and sustained attention in 40 students. They concluded that preferred or self-selected music positively affected focus and decreased the amount of mind-wandering than researcher-selected music. They also stated that self-chosen music increased attention while

performing a task. This statement is consistent with my findings, as the participants stated they were able to study more efficiently when they used their playlists.

About lyrics in background music, de la Mora Velasco and Hirumi (2020) conducted a systematic review of the literature on the influence of background music on learning. They examined eighteen studies and compared the results with instrumental music versus music with lyrics. Six studies indicated that instrumental music had a negative influence on learning, and three had a positive influence. They concluded that music with lyrics was most used by students and positively impacted them (de la Mora Velasco & Hirumu, 2020). Brattico et al. (2011) conducted a study in which fMRI was used to monitor changes in brain activity in 15 participants while listening to music with and without lyrics. They said that there was a difference apparent in the brain structure activity when the participants were listening to music with lyrics, and without.
They specifically looked at the parahippocampal gyrus, amygdala, claustrum, putamen, precentral gyrus, medial and inferior gyri and the auditory cortex. Brattico et al. (2011) also noted that music with lyrics influenced structures associated with the limbic system.

Project Description

Based on the findings of my study, I have designed a three-day professional development seminar to increase faculty awareness of the problem of student stress and the use of music listening as a mitigating tool. The seminar will also discuss the theory of emotional intelligence. It is essential to demonstrate how emotional intelligence serves to underpin student success.

The seminars will include informative lectures, small and large group discussions, and activities. Clearly defined learning objectives for each day will be outlined in the seminar materials. Lecture sections will include data from the literature review, the study findings, and first-hand student perceptions. I feel that it is vital that the attendees hear participants throughout the seminar. Keynote speakers from MCC's Health Center, Advisement Office, psychology, and music departments will be included in the seminar. The group activities will consist of games created to focus on managing stress from a student perspective and are designed to yield fruitful discussion and interaction among attendees. Each day of the seminar begins and ends with a music listening exercise. Each attendee will be asked to briefly note how the music affected them emotionally, mentally, or physically. I will collect these responses daily, and the results will be tabulated and presented during the seminar's final day. The results will serve as the final springboard roundtable discussion on how the participants can use the information they gained in their respective classrooms or interactions with students.

Project Evaluation Plan

Evaluation is essential in assuring faculty development programs' quality and transferability. Constructive feedback can serve as a vital tool for developers to assess the effectiveness of their courses. I plan to use some open-ended questions in addition to a survey because participants have a greater opportunity to explain their opinions and can be more detailed in their responses. The participants will receive short questionnaires on days one and two specific to the learning, with a more general questionnaire after the entire seminar. Yelon et al. (2014) said for faculty development seminars to be effective,

presenters must enroll participants in the idea that the learning has everyday applications that should be incorporated into practice. Attendees must also receive materials to help with the application and recall of the material. I will use suggestions and comments to make changes in the seminar as needed for effectiveness and the success of learning objectives.

Project Implications

The data produced in this study can inform educators about the problem of student stress and the influence stress can have on academic ability. Information regarding music listening habits and the physical, emotional, and mental benefits can foster an understanding of why students engage in this activity consistently on and off campus. Faculty may better understand stress and music listening and allow students to use listening devices in learning and studying spaces if it does not disturb others. Faculty may be encouraged to use music in their teaching or play music before or after lectures. Faculty may appreciate that when students have earbuds, they can use music listening for a positive and productive function.

In conclusion, student stress is a problem that is pervasive on community college campuses. Students come to community colleges with a wide range of emotional intelligence and coping abilities. The inability to constructively deal with stress can result in students floundering, failing, or withdrawing from classes. Dealing effectively with stress is key to their academic success. Having to repeat courses can create additional financial difficulties and delay entrance into the workforce. College administrators must seek innovative ways to increase retention and provide for the needs of this vulnerable

population. The COVID-19 pandemic has increased stress campus-wide and resulted in decreased enrollment. Administrators, advisors, and faculty must be open to new research that can inform best practices for institutional and student success.

Section 4: Reflections and Conclusions

Project Strengths and Limitations

The problem addressed in this study is that some traditional-age students between 18 and 24 at MCC may be experiencing stress levels that impede their learning ability. The purpose of this study is to examine student perceptions of self-selected music listening as a strategy for coping with stress while learning. The product of this research was a professional development seminar for MCC faculty regarding music listening to modulate stress in students. One of the program's goals was to facilitate an understanding of stressors students deal with and strategies they use to mitigate stress. Faculty often perceive students' use of earbuds or headphones while on campus as off-putting, distracting, disruptive, immature, and rude, when in fact, students are using music to serve a valuable purpose. Data shows that music listening allows students to modulate stress emotionally, physically, and mentally, in addition to facilitating learning.

The faculty development seminar has strengths and limitations. One of the strengths of the seminar is faculty will have the time and freedom to discuss this issue with their colleagues and to give and receive feedback. Via exercises in the seminar, faculty can develop a sensitivity to issues students deal with that contribute to their stress. Participants will hear lectures and testimonies from college professionals which may provide them with valuable material and unique perspectives. They may be encouraged to include music listening as part of their courses or in the background during labs. The seminar would only require classroom space, computer access, projector access, and

seminar materials. The Continuing Education Training office can manage advertising for the workshop.

One limitation may be the length of the seminar. Although MCC is dedicated to providing continuous and quality programs for faculty enrichment, few if any are 3 days long. Full-time faculty often teach overloads, which significantly limits their time. Participation in this seminar might involve administrative leave from teaching responsibilities, which may negatively impact students. Adjunct professors often teach at more than one college, which could also interfere with their ability to attend. Attendees may need incentives to participate in this course. I will need to speak to a CET administrator in the CET office and determine course criteria for faculty to receive significant continuing education credit. These limitations are substantial but not insurmountable.

Recommendations for Alternative Approaches

To collect data for this study, I interviewed traditional-age college students at MCC about their perceptions of music listening to deal with stress while studying. I aim to use results to educate faculty about this issue to foster understanding and suggest ways that faculty may use music to aid learning. As mentioned earlier, a 3-day seminar may be unfeasible for faculty due to their teaching responsibilities. One solution may be to put the course online and allow faculty to work at their own pace outside their hours of instruction. The facilitator would have to break the seminar into shorter modules spread over several days. Activities and games could be modified for one person or converted into a video of people playing games. Listening examples would be uploaded and

accessible via a link to YouTube or Soundcloud or uploaded as an audio file. Modules would conclude with a short quiz to check for understanding. One drawback to this approach is the lack of discussion between attendees and feedback about musical examples. Experiencing musical examples as a group would not be possible and could diminish the experience. Sound quality would be out of my control if participants listened at home. I also could not monitor how long each attendee spends listening to music without working that into the course via Blackboard settings. The seminar would require significant modifications, but it could be managed effectively.

Another project could be a white paper. I could present recommendations to the administration or department chairs regarding student stress and music listening strategies to aid learning. Senior staff may benefit from an increased understanding of local and national problems affecting MCC students. However, I do not foresee the opportunity for policy changes from the top down regarding this issue. Training of this type lends itself to professionals who have daily contact with students and might have firsthand experiences with student stress and music listening habits. The administration at MCC is currently dealing with low enrollment and financial strains associated with COVID-19. Although student stress is an issue, administrators may not feel the need to prioritize this problem at this time. I feel that the seminar would have a more significant impact if it were targeted toward faculty. Academic advisors could also attend the seminar as they deal one-on-one with students, have repeated student contact, and help students deal with setbacks. I would also open the seminar to all employees of the Campus Wellness Center, including those who work in student psychological services.

Scholarship, Project Development and Evaluation, and Leadership and Change

Throughout the research process, I have gained an appreciation and admiration for those who dedicate their lives to research for the betterment of others. I was initially overwhelmed by the fact that researchers must be secure in the knowledge that their efforts may return less than significant results, and their work can still contribute to the body of knowledge, even if it demonstrates what does not work. Fear of failure was a feeling I was able to overcome throughout the research process by immersing myself in studies. Through my work as a scholar-practitioner, I have experienced personal and professional growth.

Scholarship

The Ed.D program has been enriching for me. Every course I took reinforced my decision and renewed my determination to finish. The only obstacle I struggled with was financial. The Walden website provided me with every tool I needed to succeed academically, and my advisors and chairpeople were supportive at every turn. I am also pleased with how my writing ability has improved. The development of scholarly language is a skill that will benefit me throughout the rest of my career as an educator. I would like to continue doing research with several of my colleagues at the college. I would welcome the opportunity to complete some research as part of a team on topics that interest the group.

Project Development and Evaluation

While developing this project, I thought about seminars I had previously attended and which forums and activities were meaningful to me. Teaching is an interactive

profession and is populated with people who like to express their opinions. I felt it essential to keep this in mind when developing the course. For example, to discuss student stress, I felt it was vital to have an exercise for attendees that included dealing with stress. Likewise, I decided attendees also had to have musical listening experiences and the chance to discuss their reactions. Having participants respond to music daily will keep the seminar from becoming rote, as no two groups will respond the same way. Responses that I do not anticipate may emerge, which will keep the process exciting but may also result in changes. I need to be willing to adapt and respond appropriately.

I must also be able to alter the seminar based on evaluations I receive without bias or resentment. Feedback from evaluations should be reviewed after each seminar. The facilitator should consider all participants' views and suggestions, and activities that do not meet participants' needs should be replaced with more effective ones. The facilitator should also review objectives and module outcomes periodically.

Leadership and Change

The scholar-practitioner experience has helped me grow as a leader in higher education. I do not anticipate a promotion or change in position at the college. My department is Fine Arts, and my colleagues demonstrate their continuing work in their fields via art shows and exhibits. Although I am a working musician, my doctorate will demonstrate scholarship and a dedication to furthering my knowledge for the benefit of the college.

As a professor at a community college, my students are varied in age. Some are right out of high school, and others are returning to school to finish a degree after having

a family or career. Other students are starting a new career after several years in the workforce. I feel that as an educator, it is vital for me to demonstrate that you are never too old to earn a degree and model for them the idea of being a lifelong learner. I have shared with my students the experiences I have had as a doctoral student, and it gives them the perspective that continuing education goals can be achieved if you have the motivation. I hoped that my stories might serve as an inspiration.

Early in my studies at Walden, a professor asked me to identify an issue or problem in higher education worth investigating. Student stress was my first choice. It is a problem that I am aware of every time I step into the lecture hall. My email is often full of messages from students stating that they are unable to attend class because they are struggling with stress in their lives. Students have come to my office hours in tears because they cannot deal with their academic and personal responsibilities. I cannot relieve their stress, but I can listen and offer strategies. Unfortunately, many professors feel helpless to deal with the issues our students present with. My findings reinforced the knowledge that music listening is a powerful tool and an effective coping mechanism. I am gratified to know that as students listen to music during my courses, it provides them with much-needed emotional, physical, and mental support and a tool they can carry with them outside the classroom. I was one of those professors who complained about students being distracted and disconnected by earbuds on campus. I now know that students are doing exactly what they need to be doing to learn.

Reflection on Importance of the Work

The importance of the work lies in the in vivo quotes from the students themselves. The quotes, codes, code groups, and themes demonstrate that community college students actively seek methods to deal with stress. The predominant codes corresponded to mood regulation which was an a priori code. However, the number of codes corresponding to students seeking calmness was unanticipated. This result was, to me, quite powerful. Students make a deliberate choice to achieve calmness via music listening.

Additionally, a key code group had to do with concentration and focus. For most of the students in this study, music listening enhances the quality of learning. This is also significant. Researchers have explored this phenomenon, but there is value in having the students' perceptions in their own words. The investigation of student stress associated with Covid-19 also makes this research unique. The results of this study indicate that students at MCC use music listening as a vehicle to modulate stress physically, emotionally, and mentally.

Implications, Applications, and Directions for Future Research

Community college students are experiencing levels of stress that can be deleterious to their academic success. College administration, staff, and faculty need to be aware of this phenomenon and seek ways to assist students. Campus Wellness centers and psychological service programs strive to meet the increasing demand for student services. In addition, professional educators must do whatever is necessary to increase student retention and completion. Finally, with the rising cost of higher education,

community colleges must play a key role in providing programming and support for students to learn the skills necessary for employment in the 21st century.

As educators, the onus falls on us to key into student issues. The results of this study show that students are actively seeking strategies to modulate stress and increase learning effectiveness. Students look for stress management tools as they work to accomplish their academic goals. It may be difficult to meet all their needs, but a greater understanding of the stresses and strategies they use can bridge the gap. If college professionals are equipped with information regarding their student cohort, it can have far-reaching results. Ongoing faculty development courses provide the forum for meaningful discourse and growth.

Educators are only as successful as their students. They are the legacy of the institution, not the buildings or facilities. It is important to lay the educational foundation for students and set them on the path to further education and employment. Educators succeed when students become active and productive members of the broader community we serve. We can create positive social change by seeking avenues to meet this goal.

This study aimed to seek student perceptions on stress while learning and how music listening helps mitigate stress and increase learning effectiveness. I concluded that music listening helps students to modulate stress emotionally, physically, and mentally to facilitate learning. A more in-depth study into each of the three areas could add to the body of knowledge on this topic. The data in this study support the assertion that mood plays an essential role in facilitating or hindering learning and that a feeling of calmness

is one that students actively seek. Further study on this could also prove beneficial to professionals in higher education.

Conclusion

Each generation of students is unique and has characteristics and qualities peculiar to their age group and demographic. Community college students are increasingly diverse in age, race, gender identification, and academic ability. They all differ in their ability to balance the demands of their academic and personal lives. Emotional intelligence can affect their ability to achieve this balance. Students actively seek strategies to mitigate stress. Music listening is one strategy students choose to regulate mood and create the correct mindset or mode to study. Music listening effectively regulates mood, creates a sense of calmness, and increases focus and concentration. Students reported that music listening performs an important function beyond entertainment.

I developed a faculty development seminar to inform instructors about the problem investigated in this study and its ramifications. One recommendation is for faculty to take the time to examine the experiences and struggles of their students and students' efforts to modulate stress. When students are stressed, learning is difficult, no matter the subject or proficiency of the instructor. Professors and instructors cannot ignore the issues the students carry into the classroom. The exceptional educator will be prepared to teach their subject matter informed by the knowledge of the impediments our students must overcome and stand ready to help them adapt.

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Appendix A: The Project

MASST-MUSIC to ASSIST STUDENT STRESS TUTORIAL

MASST Faculty Development Seminar

Purpose: The purpose of this faculty development seminar is to inform faculty, administration, and staff about issues surrounding student stress. Participants will also learn about the effect of music on the body and mind. Attendees will gain an understanding of music listening as a strategy to mitigate stress. Finally, they will have first-hand experiences with music listening examples and discuss how music listening can modulate stress physically, emotionally, and mentally.

Goals: The goal of this seminar is for participants to gain and understanding of student stressors and stress relieving strategies. The participants will hear from several professionals from the college community expounding on the topic from their personal and professional points of view. Attendees will have the opportunity to discuss the topics in a group setting and gain insight from the perceptions of their peers. Participants may leave the seminar with a heightened awareness of student stressors and a renewed dedication to aiding a student in dealing with stress as they progress on their academic journeys.

Target Audience: The target audience is all professionals who have contact with students within the community college environment. This can include faculty advisors, staff, administrators, and college stakeholders.

Implementation Plan: To conduct this seminar, the presenter will need one or two people to assist with the distribution of materials and collecting and collating response notecards. The tables or desks should be arranged so participants can sit in groups of five people. The presenter will require a computer, projector, access to YouTube, good speakers, access to musical examples, and Powerpoint slides. The presenter will also have to arrange for the guest speakers. The Powerpoint presentations will be exported and printed as handouts so that participants can make notes.

Musical Examples: Day One- Relaxing Jazz or New Age Music,

Day Two- Loud, Heavy Metal Music, Day Three- 70's "Feel Good" Music, "Yesterday" by the Beatles, an instrumental rendition of "Yesterday" for rewrite activity. Other songs can be substituted for this exercise.

MAAST

Music to Assist Student Stress Tutorial
DAY ONE- Student Stress

Objectives:

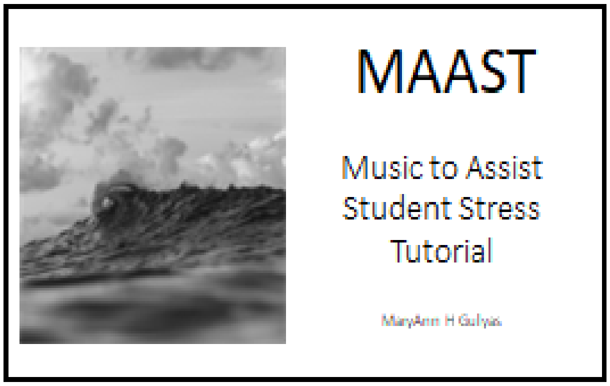
Participants will:

- Gain an understanding of the issue of student stress
- Examine the struggles of community college students in studying and learning under stress
- Participate in discussions and activities pertaining to stress

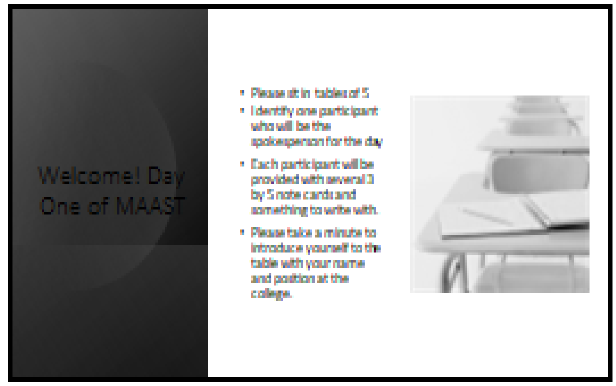
FACULTY DEVELOPMENT WORKSHOP
MAAST DAY ONE AGENDA

8:00 -8:15	Participants sit at tables of 5- Music is playing through speakers (Day One- Ambient New Age Music or Jazz)
8:15-8:30	Welcome, Introductions and Housekeeping. Each table will assign one person to be a spokesperson for the table.
8:30 –9:30	**Opening Presentation- PowerPoint on Student Stress – M Gulyas** Participants write down reactions to Frustrated Female Student Slide or a personal experience with student stress.
9:30- 9:45	Table Talk – Each participant shares with the group.
9:45-10:00	Table Talk Share- Spokesperson summarizes Table Talk Points
10:00-10:15	Break
10:15- 10:45	"Passengers on the Bus Game" each Table chooses one driver- The rest are passengers
10:45-11:00	Discussion of "Passenger on the Bus Game"
11:00- 11:15	Table Talk Share
11:15- 12:00	**Speaker from the Advising Office to speak on Student Stress**
12:00- 12:15	Questions for the Speaker
12:15- 1:00	Lunch
1:00-1:15	Musical Example is played again. Attendees write on note cards re: the music How it affected them. They can choose mentally, physically, or emotionally. Choose one.
1:15-2:00	**Speaker from Psychology Department on Stress**
2:00- 2:15	Questions for Speaker
2:15- 2:30	Break

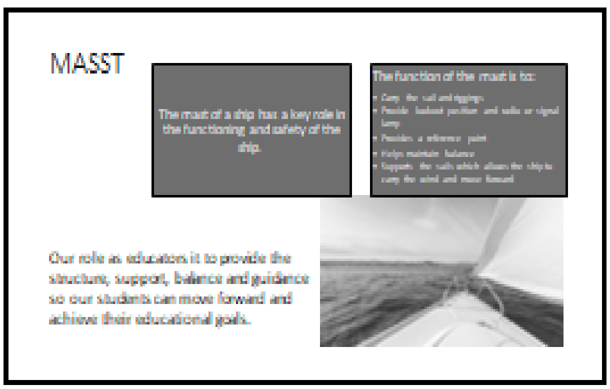
2:30- 3:30	**PowerPoint on Stress and Learning -M Gulyas**
3:30 – 4:00	Recap of the Seminar
4:30-4:45	Reflection
4:45-5:00	Turn in note cards while exiting to music.


MAAST
Music to Assist Student Stress Tutorial
MaryAnn H Gulyas

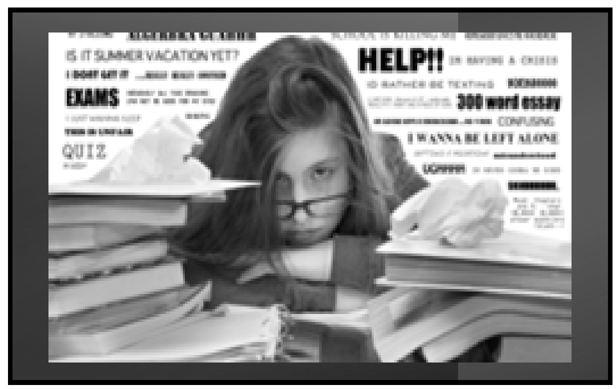
1


Welcome! Day One of MAAST
Please sit in tables of 5
Identify one participant who will be the spokesperson for the day
Each participant will be provided with several 3 by 5 note cards and something to write with.
Please take a minute to introduce yourself to the table with your name and position at the college.

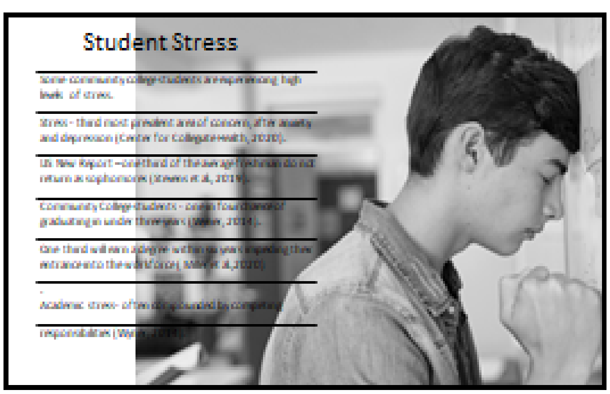
2


MASST
The mast of a ship has a key role in the functioning and safety of the ship.
The function of the mast is to:
Our role as educators it to provide the structure, support, balance and guidance so our students can move forward and achieve their educational goals.

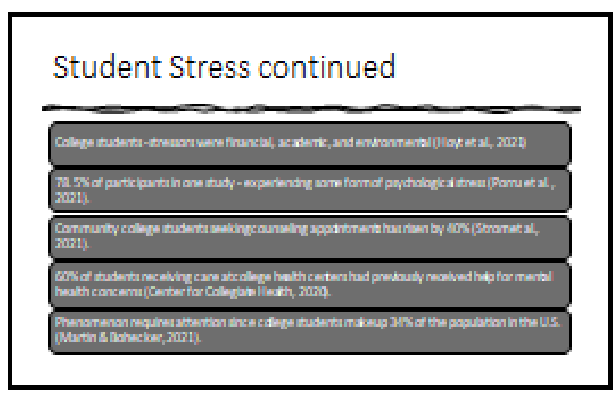
3


IS IT SUMMER VACATION YET?
HELP!!
EXAMS
300 word essay
I WANNA BE LEFT ALONE
QUIZ

4


Student Stress
Some community college students are experiencing high levels of stress.
Stress - third most prevalent area of concern, after anxiety and depression (Center for Collegiate Health, 2020).
US New Report – one third of the average freshman do not return as sophomores (Stevens et al, 2019).
Community College students - one in four chance of graduating in under three years (Walker, 2014).
One third will earn a degree within six years, impeding their entrance into the workforce (Miller et al, 2020).
Academic stress- often compounded by competing responsibilities (Walker, 2014).

5


Student Stress continued
College students - stressors were financial, academic, and environmental (Hoyt et al., 2021)
78.5% of participants in one study - experiencing some form of psychological stress (Ponnu et al., 2021).
Community college students seeking counseling appointments has risen by 40% (Strom et al., 2021).
60% of students receiving care at college health centers had previously received help for mental health concerns (Center for Collegiate Health, 2020).
Phenomenon requires attention since college students makeup 34% of the population in the U.S. (Martin & Bohecker, 2021).

6

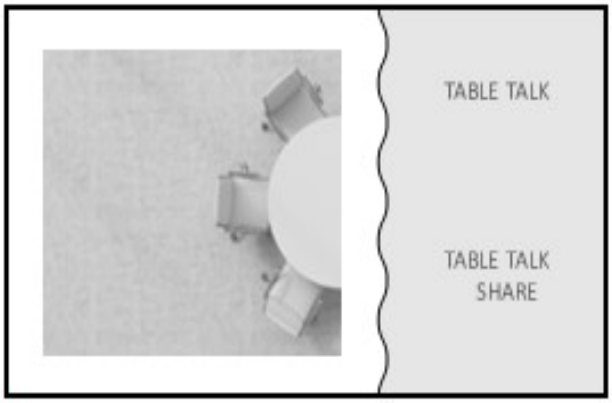
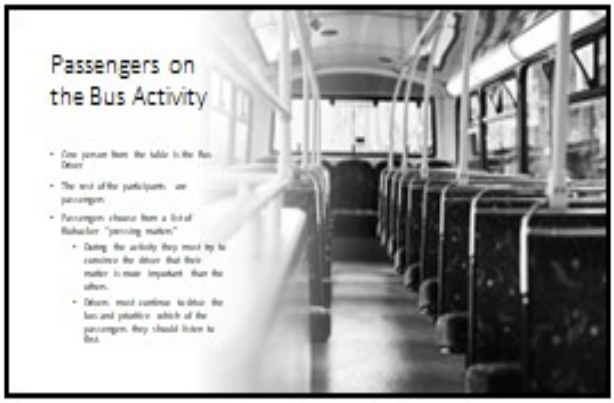


TABLE TALK
TABLE TALK
SHARE

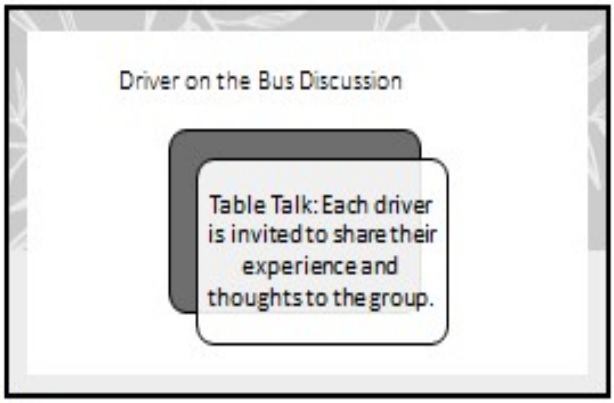
7


Passengers on the Bus Activity
• One person from the table is the Bus Driver
• The rest of the participants are passengers.
• Passengers choose from a list of Behavior "pressing matters"
• During the activity they must try to convince the driver that their matter is more important than the others.
• Drivers must continue to drive the bus and prioritize which of the passengers they should listen to first.

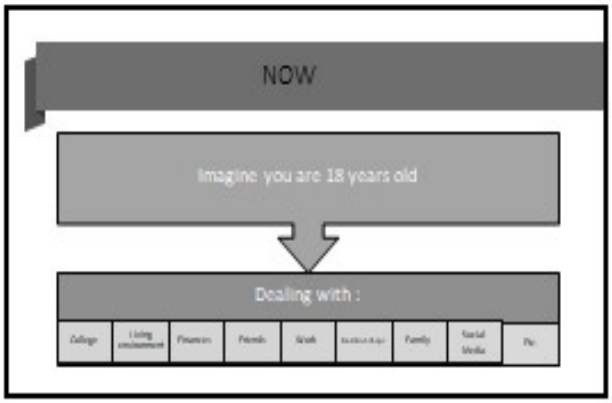
8


Finances
Academics

9


Driver on the Bus Discussion
Table Talk: Each driver is invited to share their experience and thoughts to the group.

10


NOW
Imagine you are 18 years old
Dealing with :
College
Living environment
Finances
Friends
Work
Family
Social Media

11

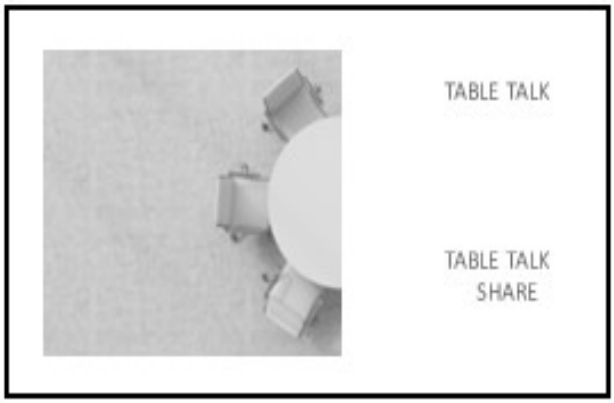


TABLE TALK
TABLE TALK
SHARE

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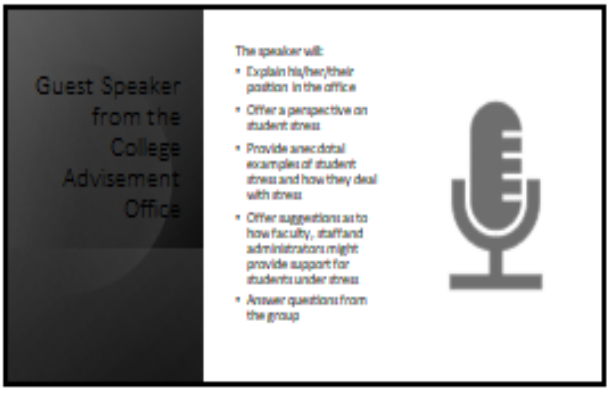

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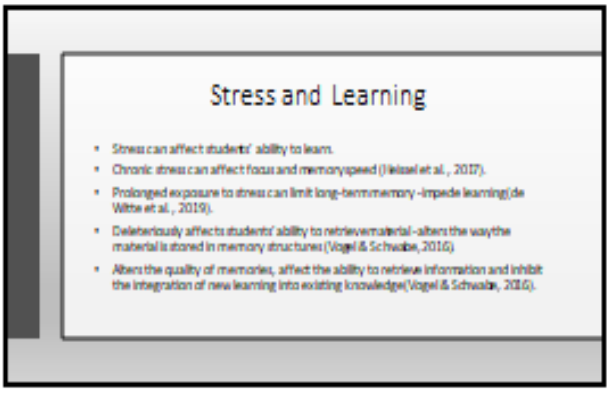

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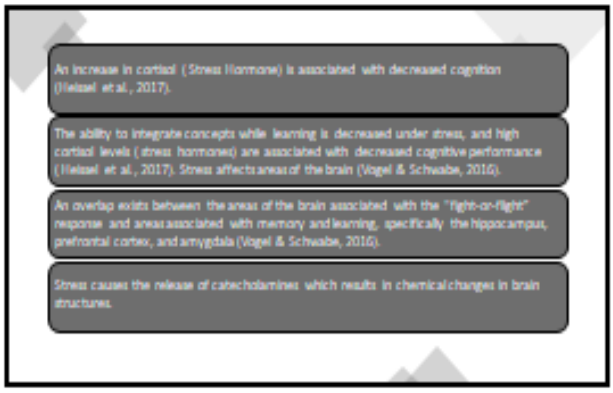

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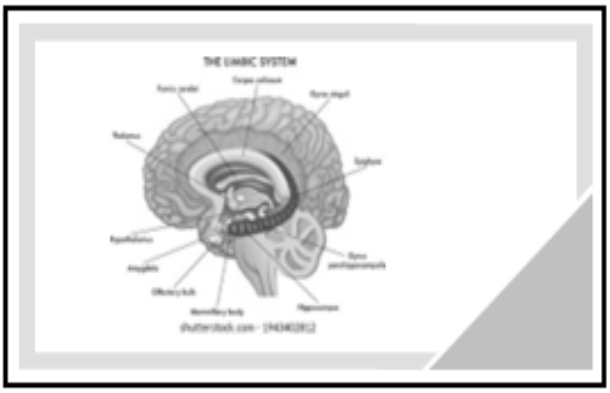

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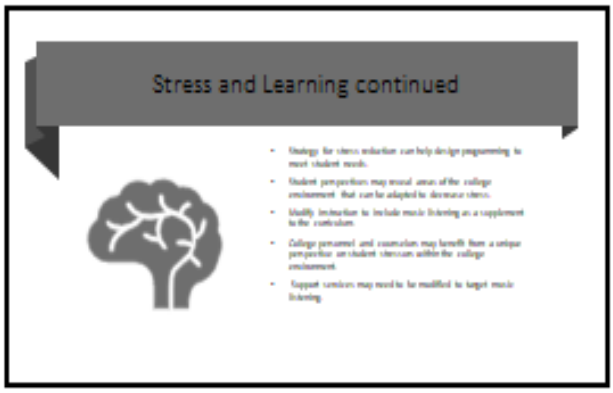


18

MASST Faculty Development Seminar Evaluation
Day One

Strongly Agree-5 Strongly Disagree-1

The seminar objectives were clearly defined.	5	4	3	2	1
Participation and interaction enhanced the learning experience.	5	4	3	2	1
The topics were relevant to higher education.	5	4	3	2	1
The content was easy to follow and organized.	5	4	3	2	1
This training with be useful for my position at the college.	5	4	3	2	1
The trainer was well-prepared and knowledgeable.	5	4	3	2	1
The time allotted was sufficient for discussion and questions.	5	4	3	2	1
The meeting room was comfortable and adequate.	5	4	3	2	1
I plan to use what I have learned in the future.	5	4	3	2	1

What do you feel was most valuable/useful from this module?

_____

_____

_____

What suggestions do you have for improvement?

_____

_____

_____

Comments?

_____

_____

_____

How would you rate the training overall? Circle One

Excellent Good Average Fair Poor

MAAST

Music to Assist Student Stress Tutorial
Day Two- Music

Objectives:

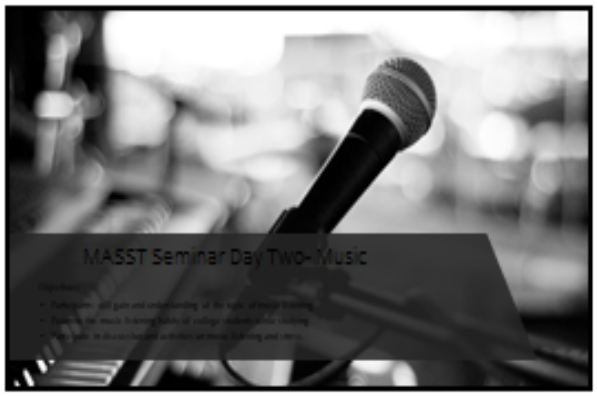
Participants will:

- gain and understanding of the topic of music listening
- examine the music listening habits of college students while studying
- participate in discussion and activities on music listening and stress.

FACULTY DEVELOPMENT WORKSHOP
MASST DAY TWO AGENDA

8:00 -8:15	Participants sit at the same tables if possible- Music is playing through speakers (Day Two- Heavy Metal Music or Powerful Classical)
8:15-8:30	Welcome, Introductions and Housekeeping Participants choose one person as the spokesperson
8:30 – 9:30	Presentation- **Powerpoint on Music – M. Gulyas** Participants are asked to make note of one fact or share a personal experience
8:45- 9:00	Table Talk Discussion
9:00-9:30	Table Talk Share
9:30- 9:45	Break
9:45- 10: 45	**PowerPoint on Music and Stress- M. Gulyas**
10:45 – 11:15	"Yesterday Rewrite" Game – Presenter will play the song "Yesterday" by the Beatles for the group, then each table rewrites the lyrics pertaining to CC Student Stress
11:15- 12:15	Performance Time! The presenter will accompany each table's version of the song.
12:15- 1:15	Lunch
1:15- 1:30	Play music example again. Attendees write on note cards re: the music How it affected them. They can choose mentally, physically, or emotionally. Choose one.
1:30- 2:30	**Speaker from the Music Department on Music and Emotion**
2:30- 2:45	Questions for the Speaker
2:45- 3:00	Break
3:00- 4:00	Excerpts from "The Legend of 1900"
4:00- 4:30	Discussion
4:30- 4:45	Reflection

4:45- 5:00	Exit with musical selection playing again. Turn in note cards while exiting.



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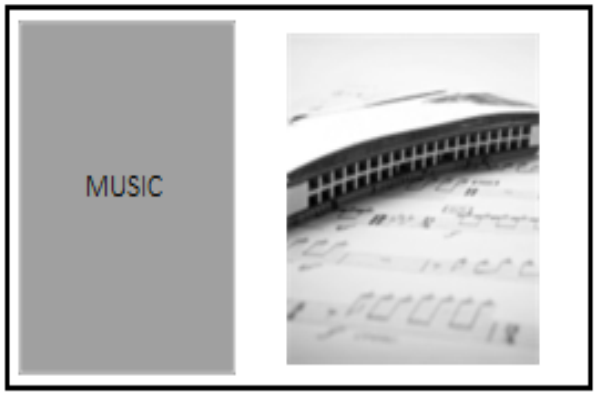

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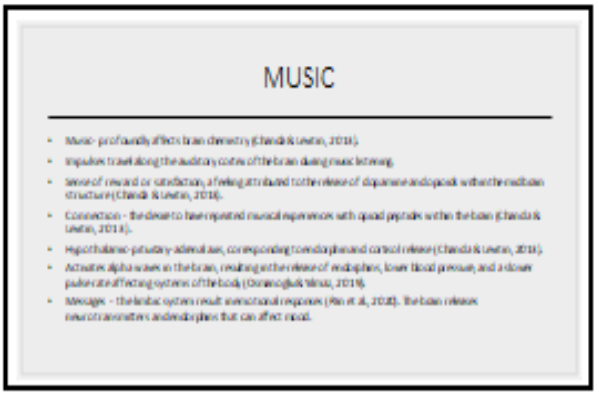

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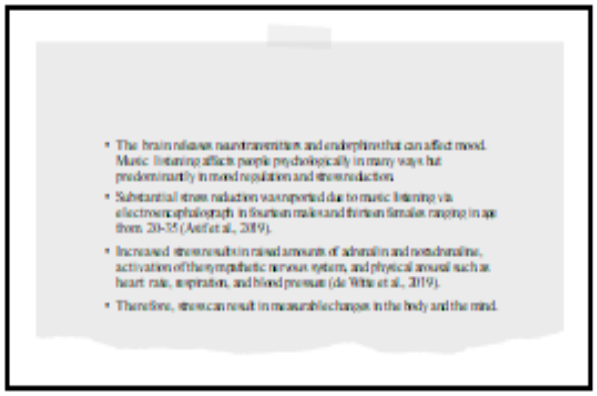

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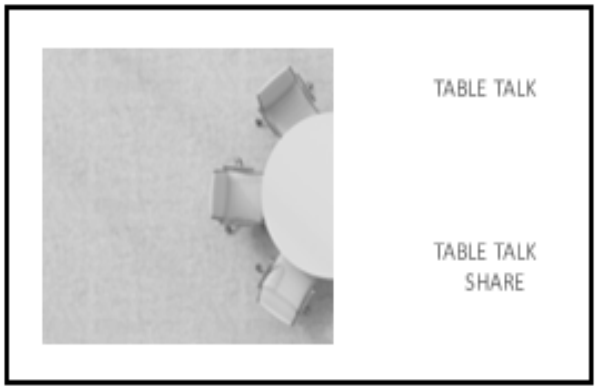

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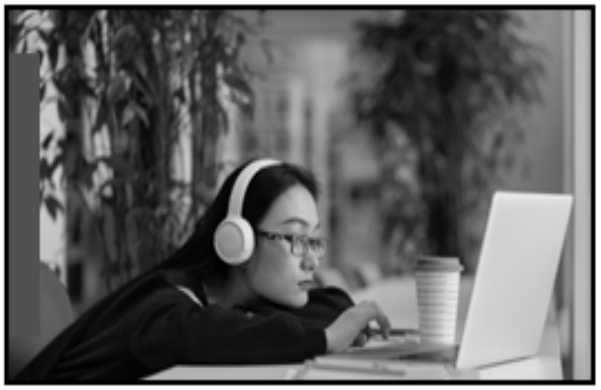

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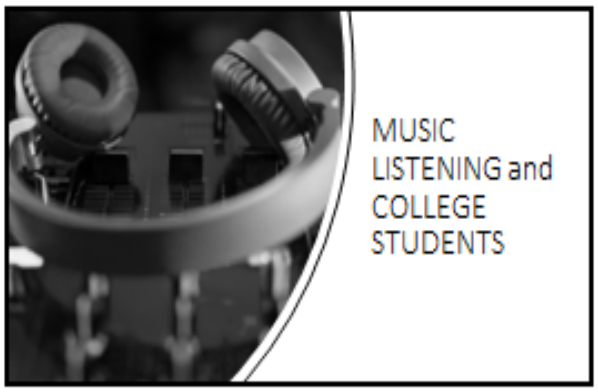

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MUSIC LISTENING and COLLEGE STUDENTS

- Listening to music has many psychophysiological benefits(Linnemann et al., 2016).
- The neuropeptideoxytocin, released by the posterior pituitary gland, is associated with feelings of affiliation and other affective, emotional states (Chanda & Levitin, 2013).
- Similarly, there is a connection between music listening, the release of oxytocin, and a sense of bonding and connection (Chanda & Levitin, 2013).
- Music listening reduces loneliness and increases a sense of "social relatedness," enjoyment, and wellbeing (Krause et al., 2021, p. 6).
- Connecting to others fulfills a basic human need. Therefore, listening to music as part of a group creates a sense of belonging and community (Koelsch, 2014).
- Singing, playing instruments, or dancing with others can result in "joint emotionality" (Koelsch, 2014).

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- Social affiliation - the desire or tendency to interact with others - is an essential function of music (Gregory, 2014).
- Music listening reduces loneliness and increases a sense of "social relatedness," enjoyment, and wellbeing (Krause et al., 2021, pg. 6).
- "Virtual Shared" - enhances the sense of connection to the composer, the performer, or another person (Schafer et al., 2020, pg. 3).
- Music listening three predominant mood-regulating functions: 1) release of negative feelings, 2) to find consolation or solace, and 3) find diversion, distraction, or escape (Lamothe , 2021).
- Decrease stress via music listening - mood or emotion regulation or mood repair (Zaatk et al., 2019).

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- College students -two and nine hours of music per day on average (Gungen, 2016).
- Most prevalent choice among young adults for free time activity (Gungen, 2016).
- Personal listening devices - powerful method to reduce stress that is non-pharmacological (Pan et al., 2020).
- Low cost and can have few side effects (de Witte et al., 2019).
- Can reduce stress in college students by providing social affiliation, mood regulation, mood repair, improved sleep, and increased learning ability.

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- College students spend time listening to music via their cell phones (PLD)
- Feeling bored, to aid relaxation, to helped them concentrate, and some used personal listening devices to isolate themselves from others (You et al., 2020).
- Over-the-ear headphones or earbuds that are placed inside the ear.
- Spotify, YouTube, Apple Music, Sound Cloud, and Pandora allow listeners to self-select the music they want to hear.
- Millions of digital song choices available via the internet, and people can select pieces that suit any mood or situation (Lehmann & Seufert, 2017).

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- Fifty- nine percent of university students listen to music while studying (Lemaire, 2019).
- Music listening - increase the ability to focus, reduce distraction from background noises, improve concentration, and reduce stressors that can interfere with learning (Hu et al., 2021).
- Increase a state of arousal that can aid learning (Lemaire, 2019).
- Can create a positive or happy emotional state, resulting in an improved ability to focus on schoolwork (Gonzalez & Aiello, 2019).
- Increase relaxation, decrease boredom, and improve concentration (Hu et al., 2021).
- Effects memory capacity (Lehmann & Seufert, 2017).

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- Music listening - effective adaptive tool in dealing with stress in community college.
- Greater understanding of the phenomenon may benefit college students.
- Agent for positive social change - investigating student perspectives on music listening, learning and stress to inform programming toward increasing retention and student success

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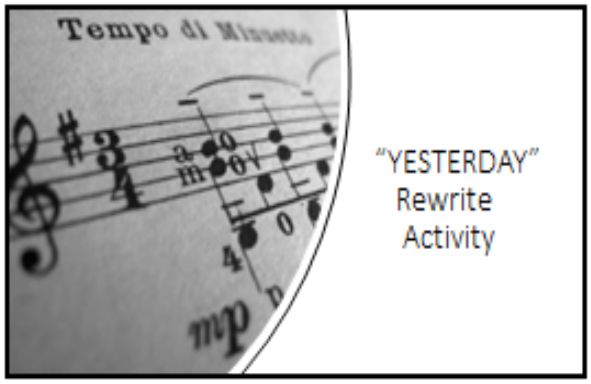

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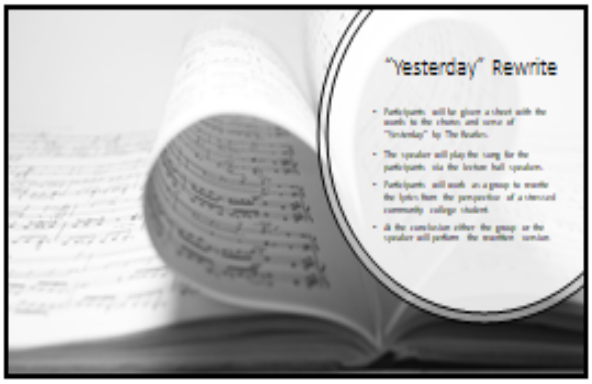

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The speaker will:
- Explain his/her position in the Music Department.
- Offer perspectives on music, music listening and emotion.
- Provide information on music from peer-reviewed journals
- Offer suggestions regarding music, college students and stress.
- Answer questions from the group.

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MASST Faculty Development Seminar Evaluation
Day Two

Strongly Agree-5 Strongly Disagree-1

The seminar objectives were clearly defined.	5	4	3	2	1
Participation and interaction enhanced the learning experience.	5	4	3	2	1
The topics were relevant to higher education.	5	4	3	2	1
The content was easy to follow and organized.	5	4	3	2	1
This training with be useful for my position at the college.	5	4	3	2	1
The trainer was well-prepared and knowledgeable.	5	4	3	2	1
The time allotted was sufficient for discussion and questions.	5	4	3	2	1
The meeting room was comfortable and adequate.	5	4	3	2	1
I plan to use what I have learned in the future.	5	4	3	2	1

What do you feel was most valuable/useful from this module?

_____
_____
_____

What suggestions do you have for improvement?

_____
_____
_____

Comments?

_____
_____
_____

How would you rate the training overall? Circle One

Excellent Good Average Fair Poor

MAAST

Music to Assist Student Stress Tutorial
Day Three- Music Listening and Stress

Objectives:
Participants will:

- Gain and understanding of music as a means to cope with stress
- Learn about the perceptions of community college students, music listening and stress
- Participate in discussions and activities regarding music listening and stress

FACULTY DEVELOPMENT WORKSHOP
MASST DAY THREE AGENDA

8:00 -8:15	Participants sit at tables- Music is playing through speakers (Day Three- "Feel Good" 70's Rock or upbeat Jazz)
8:15-8:30	Welcome, Introductions and Housekeeping
8:30 -8:45	Attendees write on note cards re: the music How it affected them. They can choose mentally, physically, or emotionally. Choose one.
8:45- 9:00	Table Talk
9:00-9:15	Table Talk Share – Cards are collected by presenter
9:15- 10:00	**Speaker from College Health Center to Speak on Student stress**
10:00- 10:15	Questions for the Speaker
10:15- 10:30	Break
10:30- 11:30	Day Three Presentation- **Community College Students' Perceptions on Music Listening as a Means to Deal with Stress While Learning and Increase Learning Effectiveness**
11:30-12:00	Questions for the presenter
12:00-12:30	Lunch
12:30- 1:15	"Community College Chutes and Ladders Game"
1:15- 1:30	Table Talk Discussion
1:30- 2:00	Table Talk Share
2:00-2:15	Break
2:15 – 3:00	**PowerPoint Presentation containing data from the faculty note cards re. music M-Gulyas**
3:00- 3:45	Large Group Discussion
3:45-4:45	Reflection- Takeaways on Music Listening and Student Stress
4:45- 5:00	Closing Slides and Thank yous All exit to "Feel Good" Music


MAAST
Seminar
Day Three

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Day Three Agenda

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Day Three Agenda Continued

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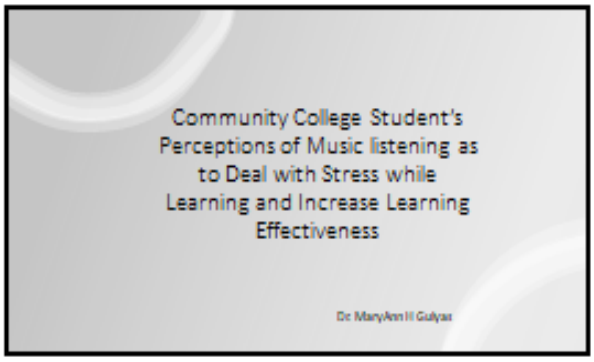

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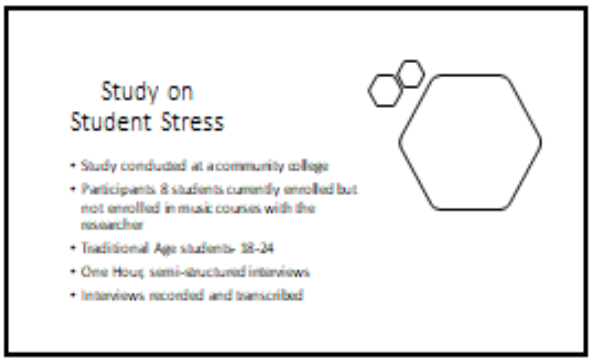

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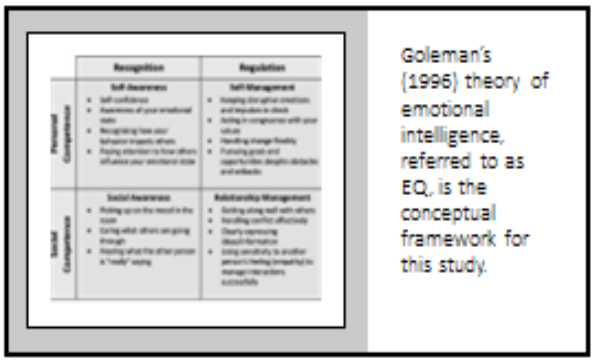

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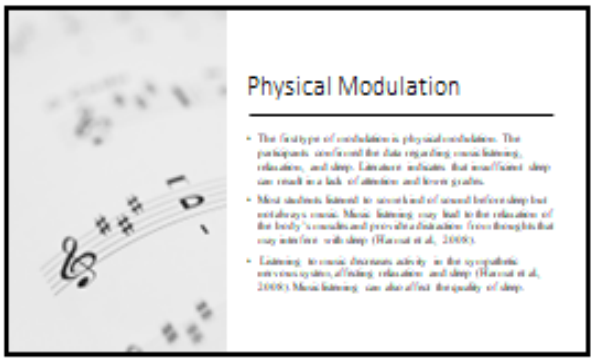

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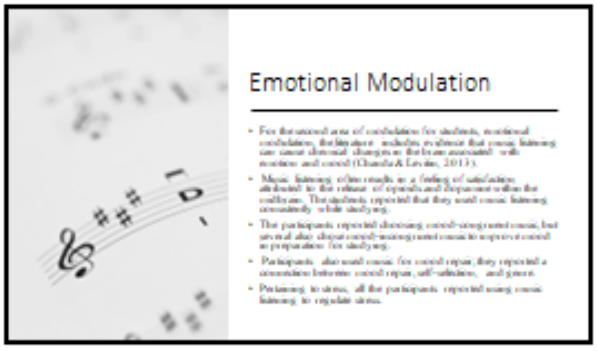

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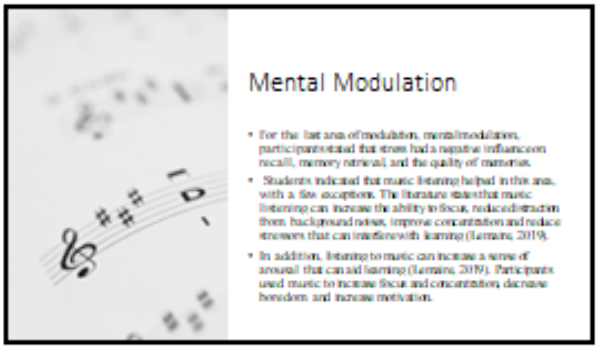

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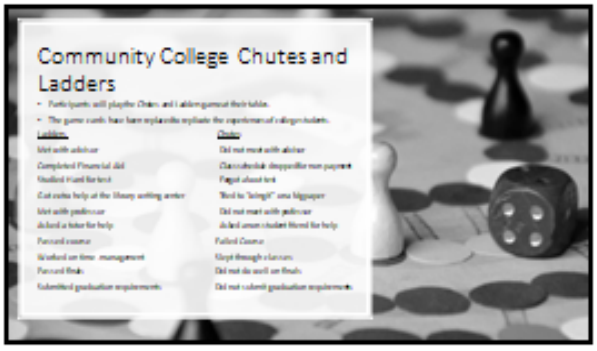

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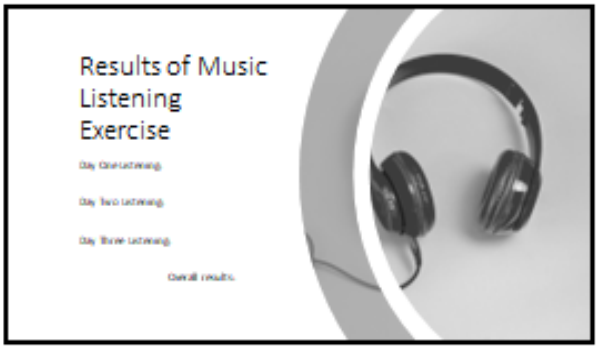

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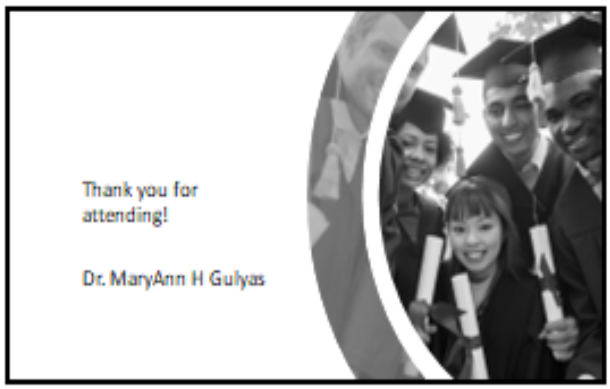

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- Image of Brain Structure-- Purchased fom Shutterstock-Medical illustration shows the major organs of the Limbic Systemof the human brain, with annotations-1915360612

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MASST Faculty Development Seminar Evaluation

What do you feel was most valuable/useful from this seminar?

Do you feel that you have information that will inform your daily interactions with students?

Did the seminar provide you with a greater understanding of community college students, stress and music listening as a tool to mitigate stress?

Did you find the guest speaker presentations valuable ?

What do you consider to be the most important “takeaway” from this seminar?

What suggestions do you have for improvement?

Comments?

How would you rate the training overall? Circle One

Excellent Good Average Fair Poor