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Self-Compassion Levels in Music and Non-Music Students

Self-compassion is a relatively new construct that is viewed as an alternative to self-esteem. Self-compassion can be described as how individuals view themselves when encountering failure or obstacles. The purpose of this study was to examine how college-age music students report self-compassion in comparison to non-music students. We hypothesized a difference in self-compassion levels between music students and non-music students as there are reported differences in personality traits and anxiety between musicians and their non-music peers. Self-compassion levels were evaluated in two data collections using the 26-item Self-Compassion Scale with an added self-report prompt examining frequency of performance anxiety in the second study. Both studies revealed no significant difference in self-compassion levels between groups, although a significant correlation was detected between experiences of performance anxiety and a self-compassion subcomponent: over-identification. While these results did not reveal a difference between groups, performance anxiety in musicians may be related to perceived self-compassion.

Keywords: self-compassion, self-esteem, music study, performance anxiety

Introduction

Among music education practitioners, there is a widespread belief that music study can help build healthy levels of self-esteem (Duerksen & Darrow, 1991; Fisher, 1988). Self-esteem can be described as an individual's sense of self-worth, perceived value, or how much one likes oneself (Neff, 2003a). Among the many findings on self-esteem since the early 1980s, researchers have identified a strong relationship between self-esteem levels and mental health outcomes. For instance, individuals who reported having low self-esteem were significantly more likely to experience suicidal ideations, a lack of motivation, or depression (see Harter, 1999,

for a review), while individuals identified as having high levels of self-esteem were more likely to report higher satisfaction in life or general happiness (Baumeister, Campbell, Krueger, & Vohs, 2003). Many programs, including educational and arts interventions, have been developed to promote healthy levels of self-esteem within young people.

Consequently, researchers in music education have investigated if music study promotes healthy self-esteem in students, to mixed results. Early studies that first explored the relationship between self-esteem and music study reported significant relationships, although most of these results are qualified in some way. Nolin and Vander Ark (1977) reported significant differences in self-esteem between ninth-grade choral and band students and those who did not participate in music; however, the researchers found multiple differences between the two observed groups in addition to self-esteem, including socio-economic status and attitudes toward music. Additionally, Duke, Flowers, and Wolfe (1997) surveyed a large sample of piano students from various parts of the United States inquiring about the participants' parents, teachers, and experience as a piano student. Students, parents, and teachers reported that piano study had a significant positive impact on the piano students, including higher self-esteem and feelings of happiness. Despite these results, the relationship between music tuition and high self-esteem is unclear due to many confounding variables, such as supportive parents or disposable income, that may account for the relationship observed between self-esteem and positive mental outcomes. More recently, Rickard et al. (2013) reported an increase of self-esteem in elementary students when incorporating additional music classes to their curriculum when compared to control groups; however, the same increase in self-esteem was detected, as compared to control groups, in a group of students that learned juggling instead of music classes, suggesting that collaborative experiences may be the catalyst for changes in self-esteem. Thus, while there is evidence of a relationship between self-esteem and musical study, the empirical record is incomplete on the nature of that relationship and could be a result of other important factors, like socio-economic status.

While some studies have reported a positive relationship of music study on self-esteem, other researchers have found limited effects (Knox-Anderson & Rickard, 2007; Lomen, 1970; Wamhoff, 1972) or no effects at all (Michel, 1971; Michel & Farrell, 1973; Rickard, Bambrick, & Gill, 2012). In an effort to examine the influence of piano study on self-esteem while controlling for socio-economic factors, Costa-Giomi (2004) tracked the self-esteem of young people who were randomly assigned to either a piano instruction group or a group that did not receive formal music instruction; socio-economic status was controlled in the ran-

dom assignment of participants. At the completion of the three-year study, there were no significant differences between the control and experimental group in self-esteem on any given year of the study. In a recent randomized study examining the social development of Venezuelan students in *el Sistema* programs, researchers reported no significant differences in self-esteem between program participants and nonparticipants after one or two years of musical training (Alemán et al., 2017). Despite the large number of articles in music pedagogical or advocacy publications extolling the extra-musical benefits of musical engagement, the relationship between music and self-esteem is, at best, inconclusive.

Regardless of the positive mental health outcomes associated with high levels of self-esteem, social psychologists have identified that the pursuit of self-esteem can have detrimental consequences (for a review, see Crocker & Park, 2004). Since the 1980s, self-esteem levels have been steadily increasing in the United States, in both children and adults; incidence of anxiety has also risen during that same time period (Twenge, 2000; Twenge & Campbell, 2001). While previous studies reported that people with higher self-esteem experienced lower levels of anxiety, some individuals may experience higher incidences of anxiety on their quest for increasing or maintaining self-esteem, as they may internalize feelings of inadequacy when receiving negative feedback in their pursuit of self-esteem (Neff & Vonk, 2009).

For most people, high self-esteem may be an indicator of good mental health; for others, the continual maintenance of self-esteem could be the cause of psychological problems, as the prevalence of anxiety, depression, and narcissism has also grown over the past several decades (Smith & Elliott, 2001; Twenge, 2000). For example, incidence of anxiety was significantly higher in a sample of average American children in the 1980s when compared to child psychiatric patients in the 1950s (Twenge, 2000). Today, teenagers report ten times more incidences of depression than teenagers from a generation ago and suicide rates have tripled among this age group (Smith & Elliott, 2001). As such, social psychologists have determined that pursuits of self-esteem or self-esteem maintenance may have unintended consequences and have explored other ways for identifying indicators of healthy mental wellbeing.

One of the promising new indicators of positive mental health is self-compassion (Neff, 2003a). Self-compassion is an alternative construct for evaluating the self and psychological well-being (Neff, 2003b) and can be described as how an individual treats their self in the presence of failure or obstacles. While this line of research is a relatively new trend in understanding social psychology, emerging self-compassion research is consistent with work in the self-in-relation model of

humanistic psychology and emotion regulation (Neff, 2003a). Social psychologists have reported that self-compassion is predictive of more stable feelings of self-worth than global self-esteem while fostering the positive benefits of high global self-esteem without the negative outcomes (e.g., narcissism) that sometimes accompany it (Neff & Vonk, 2009).

In one study, researchers reported that levels of self-compassion correlated positively with self-reported measures of happiness, optimism and personal initiative (Neff, Rude, & Kirkpatrick, 2007). Furthermore, in a laboratory setting, it was reported that high levels of self-compassion served as a buffer against anxiety during episodes of ego-threat (Neff, et al., 2007). Self-compassion levels have moderate negative correlations with social comparison, public self-consciousness, self-rumination, anger, and need for cognitive closure (Neff & Vonk, 2009). Thus, self-compassion may be a better indicator for mental well-being than the construct of global self-esteem.

The construct of self-compassion has been partitioned into three different facets: self-kindness, common-humanity, and mindfulness (Neff & Vonk, 2009). Self-kindness is defined as treating yourself in a manner that you treat others with the same failures. As an example, if one was to console a peer after a mediocre performance, one might emphasize the positive aspects of the performance with gentle suggestions for improvements; for a person with high levels of self-kindness, she would console herself in the same manner for a similar performance and not blame the errors on immutable personal traits. Common humanity is described as understanding that all people experience times of hardship and failure. In understanding this, lived negative experiences would be viewed as typical for most people rather than being unique. Finally, mindfulness is being cognizant of the present surroundings, including the environment, the actions of others, as well as the positive elements of one's life. A mindful individual is one who is able to focus on the current happenings surrounding the individual, rather than concentrating on the inner monologue of processing emotions within one's head.

Each of these facets has a negative correlate: self-judgment is the negative correlate to self-kindness, isolation is in contrast to common humanity, and over-identification is in opposition to mindfulness. Each component, both positive and negative, is measured separately through Neff's Self-Compassion Scale (2003b), but theoretically, the components are considered within the three previously mentioned categories. The three major components of self-compassion are conceptually distinct and experienced differently by the individual; however, they also interact to enhance and stimulate one another (Neff, 2003b). The development of the construct of self-compassion mirrors much of the work of social scientists

that have examined mindfulness, but researchers have noted that Neff's theoretical conceptualization of self-compassion is more robust in predicting depression, anxiety, and quality of life than other instruments that examine mindfulness (Van Dam, Sheppard, Forsyth, & Earleywine, 2011).

In the emerging literature about self-compassion in social psychology, there are reported differences in self-compassion based on group characteristics. Adolescents generally exhibit lower levels of self-compassion than older people (Neff, 2003a). While the relationship between gender and self-compassion levels is still unclear, slight differences have been reported between gender groups (with women reporting lower self-compassion than their male counterparts); however, the differences in self-compassion between gender groups dissipates as participant samples increase in age (Yarnell, Stafford, Neff, Reilly, Knox, & Mullarkey, 2015). Cultural distinctions also seem to inform an individual's experience with self-compassion. For instance, college students in cultures where Buddhism is prevalent were found to have significantly higher levels of self-compassion as compared to college students in more individualistic societies (Neff, 2003b), although differences in self-compassion levels among other types of cultures has not been detected (Birkett, 2014).

To date, there is no existing study examining self-compassion in relation to music study. While there are no reported differences between musicians and non-musicians in relation to self-compassion, several researchers have provided evidence that musicians have significantly different personality traits than individuals from the general population. Kemp (1996) reported several differences between the personalities of professional musicians and the general population. Musicians, on average, are more introverted than the general population. This inward-looking trait can be characterized as a disconnection from social groups and a reticence to share feelings or emotions.

Neuroticism is another personality trait that has been identified as being over-represented among musicians in comparison to the general population (Kemp, 1996). This trait of emotional instability can be typified by regular experiences of heightened emotions as well as volatility in personal relationships and social groups. In a study on popular musicians, Cooper and Wills (1989) found that popular musicians also reported higher levels of neuroticism than the general public. Kemp (1996) has also reported that musicians had higher identification with independence when compared to control groups, a trait which is characterized by dominance, competitiveness, and decisiveness.

In addition to personality differences, researchers have reported higher incidence of anxiety in musicians when compared to general populations. Many

musicians experience anxiety as part of their performing duties: 59% of orchestral members reported performance anxiety in the past (Van Kemenade, Van Son, & Van Heech, 1995). Music performance anxiety is an anxiety disorder, specifically a social phobia, that is experienced to varying degrees by musicians and is experienced by physiological symptoms that can include nausea, trembling, excessive sweating, and loss of concentration (Kemp, 2004; Lehmann, Sloboda, & Woody, 2007). Researchers have also reported musicians as being more likely to have trait anxiety; other trait characteristics such as introversion and neuroticism have been correlated with performance anxiety (Kemp, 1996; Steptoe & Fidler, 1987). Perfectionism (unrealistic high expectations for oneself) has also been identified as a possible catalyst for performance anxiety (Kenny, Davis, & Oates, 2004; Mor, Day, Flett, & Hewitt, 1995; Stoeber & Eissman, 2007). While perfectionism may help musicians achieve certain positive outcomes in their performing careers, perfectionist cognitions may directly affect performance anxiety (Kobori, Yoshie, Kudo, & Ohtsuki, 2011).

The higher incidence of anxiety issues and personality traits like neuroticism and introversion in musicians could indicate differences in levels of self-compassion in musicians when compared to the general public. Moreover, if musicians experience self-compassion differently from the general population, interventions of self-compassionate techniques could be utilized to treat the maladaptive symptoms experienced by musicians. The purpose of this study was to examine how music students report self-compassion in comparison to non-music students. Our guiding research question was: Do music students and non-music students experience similar levels of self-compassion? It was our hypothesis that there may be a detectable difference in self-compassion levels between music majors and non-music majors as there are reported differences in personality traits and anxiety between musicians and their non-music peers.

Study One

Method

Participants

Adult students were surveyed at a large university in the Pacific Northwest of the United States. "Music students" were operationally defined as undergraduate or graduate students whose studies focused on music study (i.e., majoring in music); this definition was agreed upon by the researchers and a consulting team from a university research group that included researchers in music education, nursing, and neurobiology, as well as students. The rationale for this definition is

that students who pursue a music degree have a qualitatively different experience in music study than students who pursue music as a hobby (e.g., participation in marching band).

Participants included 49 music majors and 52 non-music majors ($N = 101$; 56% female). Music majors were recruited from classes found in the core curriculum of a music degree (e.g., music theory, performance ensembles) while non-majors were recruited from music-focused classes that were populated with students not pursuing a music degree (i.e., music appreciation, history of rock 'n roll, etc.). Participants volunteered to stay after class to complete a questionnaire provided by the researchers. Prior to collecting data, the researchers acquired Institutional Review Board approval.

Instruments

Participants completed the Self-Compassion Scale (Neff, 2003b), a 26-item questionnaire developed to measure levels of self-compassion. The questionnaire was presented in-person and completed in a paper/pencil format. Participants were presented with statements reflecting the three positive and three negative (six total) components of self-compassion: Self-judgment (e.g., "I'm disapproving and judgmental about my own flaws and inadequacies."), Self-kindness (e.g., "I try to be loving towards myself when I'm feeling emotional pain."), Over-identification (e.g., "When I'm feeling down I tend to obsess and fixate on everything that's wrong."), Mindfulness (e.g., "When something upsets me I try to keep my emotions in balance."), Isolation (e.g., "When I think about my inadequacies, it tends to make me feel more separate and cut off from the rest of the world.") and Common Humanity (e.g., "When things are going badly for me, I see the difficulties as part of life that everyone goes through.").

Participants were asked to respond to each of these statements on a five-point Likert-type scale (1 – almost never; 5 – almost always). Cumulative scores for participants were calculated with positive components (self-kindness, mindfulness and common humanity) scored according to the response provided. Alternatively, negative responses (self-judgment, over-identification and isolation) were reverse scored. Additionally, demographic information was collected (age, gender, major, and country of birth).

Results

Following the summation of individual scores, group responses were analyzed and examined. Overall, the questionnaire was found to be reliable (Cronbach's $\alpha = .92$) with each subscale revealing a similar acceptable level of reliability. As a group, music majors' mean self-compassion score was 72.76 ($SD = 16.22$) with non-music

majors' mean self-compassion score averaging higher at 78.82 ($SD = 17.56$). For analysis, a two-group independent t -test was performed. Although the mean self-compassion score for music students was lower than non-music students, when comparing the two groups, the results failed to reject the null hypothesis, $t(99) = 1.80, p = .074$. In other words, the results indicate that there was no difference in self-compassion levels between the music majors and non-music majors that could not be explained by random error.

Participants' scores were then broken down into the six component parts of the self-compassion (e.g., self-kindness, mindfulness) survey to determine if any one component would reveal a difference between the groups. No significant differences in reported self-compassion components were detected by group. Music and non-music students reported self-compassion components are displayed in Figure 1.

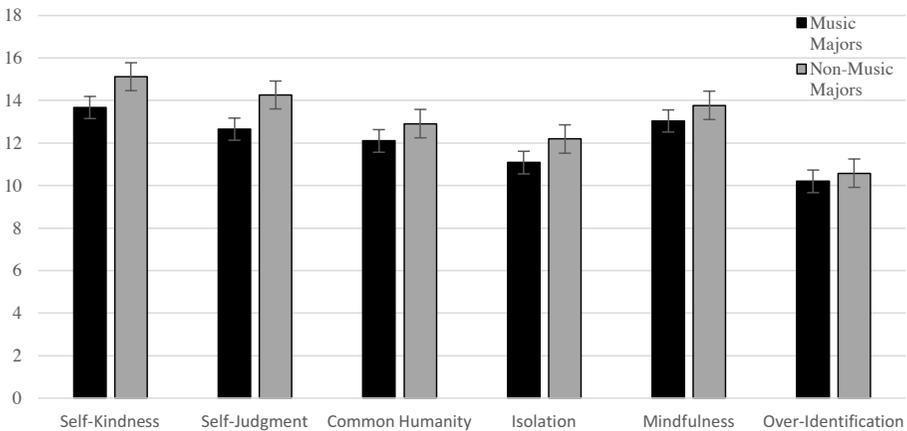


Figure 1. Self-Compassion Levels. This figure displays the reported components of self-compassion between music majors and non-music majors.

Discussion

An evaluation of previous research led the authors to hypothesize that music majors may report lower self-compassion levels than participants majoring in programs outside of music. While music majors reported self-compassion levels lower than their non-music peers, this result was not significant and failed to reject the null hypothesis. Because the p value of the difference between groups ($p = .074$) was nearing the critical value ($\alpha = .05$) in addition to music students reporting lower self-compassion levels for each of the six subcomponents of the construct,

the researchers re-examined the data to ascertain if there was a Type-2 error present, where there is a significant difference between groups but it is undetected due to a lack of power. The researchers initiated a post-hoc power analysis using G*Power software (Faul, Erdfelder, Lang, & Buchner, 2007). After inputting the number of participants for each group, the estimated power ($1 - \beta$) to detect a medium effect size (Cohen's $d = .5$) was .70, below the standard of .80 of research in the social sciences (Overland, 2014). Due to the deficient power in this analysis along with the general trend of musicians' lower scores in self-compassion as well as the individual components, the research team decided to pursue a replication to substantiate findings.

Study Two

Method

Participants

Data were gathered from music and non-music majors from two universities in the United States. One institution was a large public university in the Southeastern part of the country; the other university was a small, private religious school located in the Midwestern part of the United States. This second data collection comprised 69 music majors and 49 non-music majors ($N = 118$, 58% female). Participants were recruited from music and non-music classes (e.g., Introduction to Speech) via email from the authors in which prospective participants were provided a link to complete the questionnaire at their leisure.

Instrument

Participants completed the same 26-item Self-Compassion Scale (Neff, 2003b) and demographic items as the first data collection. Music majors were also asked to respond to one additional item ("How often do you experience performance anxiety?") on a 5-point, Likert-type scale. This scale was anchored with a response of "1" being "almost never" and "5" being "almost always." Similar to Study 1, composite self-compassion scores were tabulated for each participant. Positive components were scored exactly as the participant responded and negative components were reverse scored, as in the first study. Responses from the performance anxiety inquiry did not require any adjustment by the scorers and were analyzed as they were reported.

Results

Two different types of analyses were run with this data set. First, mean group scores were compared to detect differences in self-compassion between music major and non-music major groups. Second, responses from the performance anxiety inquiry were compared to self-compassion scores of the music major group to examine a potential relationship. In comparing the two groups' summed self-compassion scores, no significant difference was found between groups, which again failed to reject the null hypothesis, $t(118) = 0.13, p > .05$. In this study, music majors scored an average of 76.96 ($SD = 15.21$) and non-music majors scored 76.57 ($SD = 16.56$) in self-compassion.

Reports of performance anxiety and self-compassion scores by music majors were compared to identify a potential relationship. As seen in Table 1, there was no significant difference between composite self-compassion scores and reported experiences of performance anxiety, $r(67) = -.18, p > .05$. Components of self-compassion were also examined in relation to performance anxiety. Five of the six subcomponents revealed no significant relationship to performance anxiety (self-kindness, $r(118) = -.09, p > .05$; self-judgment, $r(67) = -.20, p > .05$; common humanity, $r(67) = .05, p > .05$; isolation, $r(67) = -.13, p > .05$; mindfulness, $r(67) = -.08, p > .05$); however, over-identification was identified as having a significant, moderate correlation with reported incidence of performance anxiety, $r(67) = -.31, p < .05$.

Discussion

Results from the second data collection revealed no significant difference in self-compassion between the music and non-music groups, supporting the initial finding of the prior data collection. The researchers added one additional item to explore the relationship of reported performance anxiety in music majors with self-compassion. While there was not a strong relationship detected between self-compassion and reported performance anxiety, there was one significant correlation detected between performance anxiety and one component of self-compassion: over-identification.

A low-to-moderate significant negative correlation, $r = -.31, p < .05$, was found between self-compassion scores and the over-identification component of self-compassion. In other words, participants who might “fixate” or “overly obsess” (Neff, 2003b) on negative aspects of their performance reported more frequent experiences of performance anxiety. While the researchers' hypothesis related to self-compassion was not fully supported, the singular relationship between over-identification and performance anxiety exhibited by these participants merits further exploration.

General Discussion

The purpose of this study was to explore self-compassion levels of music students and their non-music peers. Despite previous evidence that musicians differ from non-musical peers in certain personality traits (e.g, neuroticism, introversion, independence), the current studies revealed no significant difference in self-compassion between groups based on field of study, music or otherwise. While results did not align with our original hypothesis, it seems logical that a great deal of variability in self-compassion is present in both music students and students of other disciplines. In other words, there are individuals with high or low self-compassion levels in both the music and non-music groups. It is reasonable to believe that many musicians are likely to be compassionate towards themselves when encountering obstacles, an important trait to become successful in a career where high-pressured performances are expected. In contrast, it is just as likely that other musicians may be less compassionate toward themselves if they do not meet their high expectations.

While the focus of this project examined the reported self-compassion levels of music and non-music students, a limitation of the study is the creation of the groups by an arbitrary designation (e.g., their focus of study). It can be assumed that many in the non-music group had significant musical experiences and training, but decided to pursue other disciplines. Further study should explore self-compassion using a more quantitative metric for musical experiences, like the Goldsmith Music Sophistication Index (Müllensiefen, Gingras, Stewart, & Müsil, 2011), to robustly examine the relationships between music experience and self-compassion.

While our compared groups were similar in age and nation of origin, other factors such as socioeconomic status, ethnicity, and religious tradition were not considered; these factors could have an unknown influence on our results. The lack of any distinction in self-compassion between music students and non-music students may have been due to competing factors within the self. Stratification or sample matching may be useful in future studies to fully understand if music tuition can impact self-compassion. Alternatively, our samples may have been less homogenous as compared to samples in previous research where personality differences were detected between musicians and the general population. Samples from both private and public institutions were more diverse than prior studies (i.e., recruiting participants who were members of a professional orchestra or conservatories) as well as student bodies being more diverse than when much of the prior research was undertaken. Differences in self-compassion may emerge between more specific groups within music students; for instance, students who concen-

trate on performance aspects to their careers may be more or less compassionate to themselves than those who concentrate on musicology or pedagogy. Future studies on self-compassion should examine subgroups of musicians more closely.

In the second data collection, we examined a potential relationship between the components of self-compassion and a single item of self-reporting performance anxiety. There was no relationship detected between reported self-compassion and performance anxiety. However, a low-to-moderate significant correlation ($r = -.31$) was detected between reported performance anxiety and over-identification, a negative component of self-compassion where the individual is more aware of his or her inner cognitions than his or her environment.

The relationship between self-compassion and performance anxiety should be examined further as it is surprising that a relationship was detected with such a blunt item on the survey. Future studies of performance anxiety and self-compassion should utilize performance anxiety instruments (e.g., Kenny Music Performance Anxiety Inventory) to fully understand how performance anxiety and self-compassion interact (Kenny, et al., 2004). If there is a clearer understanding of the relationship between self-compassion and performance anxiety, future research could focus on design and implementation of self-compassion interventions, helping to alleviate the negative effects of performance anxiety.

Through two different data collections, the results revealed no significant difference in self-compassion levels between the broad categories of music students and non-music students in the studied samples. While these results did not support the original hypothesis of this study, it has led the authors to consider individual variances within music majors and potential relationships between self-compassion and performance anxiety. Future directions in this line of research can help elucidate the relationship between self-compassion and incidence of performance anxiety. With clearer understanding of these phenomena, researchers and music education practitioners may be able to provide helpful tools to reduce or eliminate performance anxiety symptoms through self-compassion techniques.

As this is the first exploration of self-compassion within the field of music education, it is important to consider these results in light of the research record of social psychology. There are documented differences in self-compassion between some groups of people (e.g., differences by age, gender, or culture of origin); however, there is no evidence that self-compassion is influenced by a prolonged activity as a by-product. The lack of evidence in this study suggests that other stronger enculturating factors (e.g., gender, religious tradition, individualistic/collective society) may have more impact on self-conceptualization than a prolonged activity like music study.

Moreover, researchers in social psychology have provided evidence that an individual's self-compassion level can be improved through therapeutic means which can lead to better mental health outcomes; however, these changes only occur within the context of explicitly improving self-compassion as therapy or a specific program, not as unintended consequences of some other activity (like music-making). In some ways, it is advantageous that music students are more like non-music students than different in regards to self-compassion. For these samples, it appears that music study did not positively or, more importantly, negatively impact music students' sense of self.

In some ways, the results of this study are similar to studies exploring self-esteem in music education where there are no significant differences between control and experimental groups. Costa-Giomi (2004) reported no differences between the control and music group in self-esteem after three years of piano study; she also reported significant growth in self-esteem in the music group from the beginning of the study to three years later. Perhaps a relationship between music study and self-compassion can be detected longitudinally and should be considered in future research designs.

For music educators, the implications of self-compassion and the results of this study are important. Self-compassion can help students to promote mental well-being, that can serve them well throughout their lives as well as potentially serve as a defense against performance anxiety in their musical studies. The evidence of this study suggests that intensive music study does not affect self-compassion in a uniform way, whether positively or negatively; music educators must be explicit and proactive in coaching students to be more compassionate to themselves.

Music programs will likely benefit from endorsing self-compassion within their classrooms, as students may begin to attribute obstacles, and even failures, to external forces rather than to an internal, personal fault. These attributions can heavily influence participation choices (Asmus, 1985; Demorest, Kelley, & Pfordresher, 2017). While increased participation in music programs and a reduction in performance anxiety are laudable goals for the music educator, promoting self-compassion in students has value in that it may help build healthy, collaborative citizens.

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