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Original Research

Treble or Trouble: Mental Health Experiences of Gender-Diverse Collegiate Marching Band Artists

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Context: For gender-diverse (GD) college marching band (MB) artists, the risks for anxiety and depression may be higher as they navigate the demands and stressors associated with MB, college, and their gender identity.

Objectives: To examine the risks of anxiety and depression across GD MB artists and to explore their barriers and attitudes toward seeking mental health (MH) care.

Design: Cross-sectional study.

Setting: Online survey.

Patients or Other Participants: Seventy-eight GD individuals (transgender = 12, nonbinary = 66, age = 19 ± 1 years).

Main Outcome Measure(s): A survey was used to assess demographics, anxiety risk using the State-Trait Anxiety Inventory, depression risk using the Center for Epidemiologic Studies Depression Scale, and barriers and attitudes using the Barriers Towards Seeking Help Checklist, the Attitudes Toward Seeking Professional Psychological Help Scale-Short Form, and the Mental Help Seeking Attitudes Scale. We calculated descriptive statistics and univariate analyses to evaluate scores, risks, and differences between MH and receiving assistance.

Results: Participants had high state anxiety (mean = 52.0 ± 112.1), trait anxiety (mean = 55.2 ± 10.0), and symptoms of depression (mean = 30.4 ± 12.0) based on the State-Trait Anxiety Inventory and the Center for Epidemiologic Studies Depression Scale. Overall, 78.2% (n = 61 of 78) of GD MB artists were considered at risk for both state and trait anxiety and depression, and 18% (n = 11 of 61) did not seek help from an MH professional. These GD MB artists cited a lack of time (82.1%; n = 64 of 78) as the primary barrier to seeking professional help. The mean score on the Attitudes Toward Seeking Professional Psychological Help Scale-Short Form for all GD artists was 19.5 ± 5.0, and the total score for the Mental Help Seeking Attitudes Scale was 47.8 ± 9.2, which indicated more favorable attitudes toward seeking professional help.

Conclusions: We identified high rates of clinical symptoms for depression and anxiety among GD MB artists. The data are consistent with those from other minority populations and above the normative values for cisgender students. The lack of help-seeking behaviors in nearly 15% of at-risk participants highlights the need for specialized resources for GD patients and those participating in MB.

Key Words: transgender, nonbinary, performing arts medicine, behavioral health

Key Points

- Marching band artists experienced external stressors leading to risks for depression and anxiety similar to those of collegiate student-athletes.
- Gender-diverse college students participating in marching band displayed elevated symptoms of anxiety and depression beyond the normative values for cisgender college students. Normative values for gender-diverse college students on these outcome measures should be determined.
- Although gender-diverse marching band artists reported a positive attitude toward mental health care, several participants cited a lack of time as a barrier to seeking care.

College students often face concerns with the adjustment to college, including support system changes and academic demands, leading to mental health (MH) concerns. Across nearly 2 decades (2004–2021), the prevalence of anxiety symptoms has ranged from 34.6% to 43.4% in college students, and although symptoms of depression were slightly lower than those of anxiety, they have ranged from 29.3% to 37.8%.[1] We must acknowledge the effects of the COVID-19 pandemic on the MH of individuals. Before the transition to online learning due to COVID-19, Haikalis et al[2] identified a heightened likelihood of clinically significant anxiety (27.1%) and depression (13.8%) among US college students, with increases in rates (anxiety = 43.5%, depression = 30.4%) in the summer of 2020. Overall, levels of anxiety and depression among college students may vary based on their daily responsibilities and demands or the events occurring in their community. More than 20% of student-athletes were at risk for depression, with similar percentages at risk for anxiety (12.4%), low self-esteem (8%), and eating disorders (20.9%).[3,4]

One at-risk college student population that warrants further exploration is performing artists. Performing artists are dramatic or musical entertainers who perform for an audience.

These artists (eg, singers, actors, dancers, musicians) appreciate the structure and achievement-oriented activities at the center of their productions, even when they tend to respond better to intrinsic goals focusing on enjoying their artistic experiences.[5] Collegiate marching bands (MBs) across the US have gained fame performing independently in productions, in parades, and at college football games and are watched by large audiences in person and online. For many musicians, MB serves as a structured learning and rewarding performance opportunity, as well as a social activity that establishes a community bond.[6,7] Marching band provides a welcoming environment in which those from various sociocultural backgrounds come together with a similar goal, and often, the relationships turn into families with long-lasting connections. Unfortunately, the COVID-19 pandemic threatened the sense of community across MBs with physical distancing, split or online rehearsals, and in some cases, cancellations of an entire season.[6] Although most MB artists reported feeling safe (83.4%) and adjusting very well (63.4%) to the modifications implemented by their institution's MB, 50% of returning members felt the community within the entire MB was weak compared with previous years, and similarly, 40% of returning members perceived community weaknesses within their marching section.[6]

The literature has depicted an increased prevalence of MH concerns among various groups of students. Specific to MB and music students, higher levels of anxiety and depression have been observed than in the general student population.[8,9] Uriegas et al[8] documented that 45.3% of MB artists were at risk for eating disorders using a multidimensional approach, which demonstrated high prevalence rates across other psychosocial scales with typical and elevated clinical symptoms in interpersonal alienation, perfectionism, and interpersonal insecurity. Similarly, a higher prevalence of mental disorders has been observed in music and arts students (23.4% versus 15.4% in the general student population), with approximately 18% of these students obtaining psychotherapy compared with 10% of the general student population, and higher symptom loads than those of professional musicians.[9]

Backgrounds, cultures, and identities influence overall collegiate and band experiences. A history of exclusion exists within MBs, as they are paramilitary organizations that use organizational ranks and standardized uniforms, ultimately representing a privilege to men and a disadvantage to other genders.[10] However, efforts are being made across music education programs to create inclusive classrooms by offering support and strategies for lesbian, gay, bisexual, transgender, queer, and other identity students and educators. Collegiate MB provides a unique space that can foster or hinder student development, especially for those navigating historically marginalized identities. One group of persons who continue to face social exclusion and discrimination in the US is gender-diverse (GD) individuals. The term *GD* recognizes a person whose gender identity, expression, or both differ from social and gender norms. The GD community includes *nonbinary persons*, who do not identify solely as a man or a woman and can sometimes be referred to as *genderfluid* or *genderqueer*, and *transgender persons*, whose gender identity differs from their sex assigned at birth.[11] The GD groups do not imply sexual orientations and simply refer to the identity and expression of an individual different from the gender binary structure (man and woman). People who identify as GD often experience additional stressors that may lead to an increased prevalence of MH challenges. The gender minority stress model attempts to explain the higher rates of MH concerns in GD individuals and theorizes that the higher incidence is directly associated with the stress experienced as part of a marginalized community.[12] Furthermore, it is well documented that rates of MH concerns are higher for GD individuals as compared with cisgender individuals, particularly anxiety and depression, which are 2 to 6 times higher.[13–16]

Given the high rates of MH concerns, increased physical demands and workload, risk for exertional heat illnesses, and prevalence of health concerns, collaboration and medical oversight provided by athletic trainers (ATs) is necessary among MBs.[8,17–20] As ATs continue to expand into the performing arts, including MB, we suggest that a patient-centered, holistic perspective for health care is needed. Based on previous research and the suggested effects of the COVID-19 pandemic, the risk for anxiety and depression in GD college MB artists may be higher as they navigate the demands and stressors associated with MB, college, and their gender identity. Therefore, we sought to examine the frequency of anxiety and depression risk across GD MB artists. A secondary aim was to explore the barriers and attitudes toward seeking MH care in these artists.

METHODS

Study Design

This study was part of a larger cross-sectional investigation of MH variables (eg, depression, anxiety, barriers, and attitudes toward MH) among MB artists. However, the instruments used have normative values only for females and males. Therefore, we examined data from GD MB artists independently for this study.

Participants

Participants were MB artists who identified as GD (n = 78; transgender = 12; nonbinary = 66; age = 19 ± 1 years) from collegiate institutions across the US. To be included, all MB artists had to be enrolled and actively participating in a university or college MB and be between the ages of 18 and 26 years. The exclusion criterion consisted of not being on a university or college MB roster at the time of participation. The study was reviewed and approved by the institutional review board, and all recruits consented before participation.

Study Procedures

An informational letter and the survey were emailed to US collegiate MB directors (n = 200); the email asked the band directors to share the survey link with their MB artists. A Qualtrics survey was used to assess demographics, followed by the State-Trait Anxiety Inventory (STAI), the Center for Epidemiologic Studies Depression Scale (CES-D), the Barriers to Help Seeking Checklist (BHSC), the Attitudes Toward Seeking Professional Psychological Help Scale-Short Form (ATSPPH-SF), and the Mental Help Seeking Attitudes Scale (MHSAS). The survey was open from October 2022 to January 2023. An email reminder was sent to the MB directors 5 times every 2 to 3 weeks during the data-collection period. The survey link contained an invitation and consent letter, and consent was implied if they began the survey.

Instruments

Basic Demographic Survey. The demographic survey asked participants to self-report age, height (inches), weight

(pounds), ethnicity, race, gender, and academic status (first-year, sophomore, junior, and senior/fifth-year/graduate students). Marching band artists also selected their instrument section by choosing among brass (trumpet, mellophone, trombone, baritone, and sousaphone), woodwind (flute/piccolo, clarinet, alto saxophone, and tenor saxophone), percussion (snare, tenors, bass drums, cymbals, or other percussion instruments), or auxiliary units (color guard, dancers, majorettes, and drum majors).

The STAI. The STAI is a self-reported instrument that indicates *state anxiety* (a temporary condition in a specific situation) and *trait anxiety* (a general tendency to perceive situations as threatening).[21] This instrument consists of 40 statements. The first 20 statements examine state anxiety and address how individuals feel "right now/at this moment"; answers are scored on a scale of 1 = *not at all* to 4 = *very much so*. The remaining 20 statements address trait anxiety and how individuals "generally feel"; answers are scored on a scale of 1 = *almost never* to 4 = *almost always*.[21] Total scores range from 20 to 80; higher scores indicate greater anxiety. We used a cutoff score of ≥40, which is commonly used to define a clinical level of anxiety.[22] The internal consistency coefficients for the STAI ranged from $r = 0.86$ to $r = 0.95$, and the test-retest reliability ranged from $r = 0.65$ to $r = 0.75$.[21] Reliability for our study was $r = 0.938$ for state anxiety and $r = 0.887$ for trait anxiety.

The CES-D. The CES-D is a self-reported measure that examines symptoms associated with depression.[23] This scale consists of 20 statements reflecting various symptoms of depression the individual may have experienced in the past week. Responses are on a 4-point Likert scale ranging from 1 = *rarely or none of the time (less than 1 day)* to 4 = *most or all of the time (5–7 days)*. Examples include "I felt sad" and "I enjoyed life." Total scores range from 0 to 60, and positive statements are reverse coded. A score >16 indicates an individual is at risk for depression. A score ≥21 produced the best screening characteristics; therefore, we used 21 as the cutoff score.[24] The internal consistency for the CES-D was $r = 0.85$ to $r = 0.90$, with a test-retest reliability of $r = 0.45$ to $r = 0.07$.[23,25] The reliability for our study was $r = 0.921$.

The BHSC. The BHSC is a 17-item dichotomous (*yes* or *no*) tool used to assess an individual's perceived barriers to seeking MH support. The tool was initially designed for 3 domains—patient-based, system-based, and provider-based barriers—to assess in medical students and in later years was modified for student-athletes.[26,27] We adjusted the wording to reflect our participants, MB artists. Reliability was previously established at 0.80, and our reliability was 0.841.[27]

The ATSPPH-SF. The ATSPPH-SF was developed as a 10-item short-version survey to measure attitudes toward seeking psychological help.[28] Items are rated on a 4-point Likert scale: 0 = *disagree* to 3 = *agree*, with 5 questions reverse scored (2, 4, 8, 9, and 10). The total score is determined by summing all items, with higher scores indicating more positive attitudes toward seeking professional help. The ATSPPH-SF had a correlation of 0.87 with the original 29-item scale and reliability of 0.77 in college students.[28,29] Reliability in our study was 0.759.

The MHSAS. The MHSAS is a 9-item tool designed to measure an individual's overall evaluation (unfavorable versus favorable) of seeking help from an MH provider (ie, psychologist, psychiatrist, clinical social worker, or counselor) if a concern about their MH arose.[30] Scores range from 1 to 7, with reverse coding for 5 of 9 questions; a high score on all items indicates a more favorable attitude (7 = *favorable* attitude, 4 = *neutral* attitude, and 1 = *unfavorable*).[30] Mean scores were calculated for only those respondents who answered at least 8 of the 9 items. The MSHSAS demonstrated test-retest reliability of 0.76, and reliability in our study was $r = 0.835$.[30]

Data Analysis

Data were analyzed using SPSS (version 28; IBM Corp). To determine power, we based our analysis on prevalence for statistical recommendations for a target finite population of 609 MB artists with a 10% margin of error (CI); we would need a sample size of 83 GD MB artists.[31,32] We also compared sample sizes for GD participants in previous studies, which ranged from 9 to 351 participants; therefore, our sample of 78 was consistent with the power analysis and the previous literature.[13,33,34] Basic descriptive statistics, including means, SDs, medians, ranges, frequencies, and percentages, were calculated for all demographic information. Data were analyzed for normality, based on the skewness, kurtosis, and Shapiro-Wilk test, and found to be normally distributed. The prevalence of the risk of state and trait anxiety and depression was examined using frequencies and percentages. A crude univariate analysis assessed the proportion at risk for MH conditions and the seeking of help from an MH professional.

RESULTS

These data were part of a larger study of collegiate MB artists in the US. A total of 942 MB artists began the study. Of these, 101 identified as GD MB artists, and 78 finished the survey, yielding a completion rate of 77.2% (transgender = 15.4% [n = 12]; nonbinary = 84.6% [n = 66]) for this group. All self-reported demographic information is presented in Table 1.

Self-Reported MH History

A total of 96% of GD MB artists described previously being concerned about their personal MH, and 79.5% of all participants described seeing an MH clinician. Additionally, participants were asked about psychiatric medication and prior hospitalization due to an MH challenge. A total of 47.4% (n = 37) reported using some form of psychiatric medication, and 7.7% (n = 6) disclosed being hospitalized, with 83.3% (n = 5 of 6) of those who were hospitalized indicating their hospitalization was due to suicidal ideation or attempts. The other participant attributed hospitalization to a drug overdose.

Anxiety and Depression

Across all GD MB artists, the mean total scores for state anxiety were 52.0 ± 12.1 (minimum = 21, maximum = 74). Proneness to state anxiety was found in 83.3% (n = 65) of participants with scores ≥40 of 80 on the STAI (Table 2). With regard to trait anxiety, GD MB artists averaged 55.2 ± 10.0 (minimum = 27, maximum = 72) on the STAI, with 93.6% having proneness to trait anxiety (Table 3). On the CES-D, a score ≥21 of 60 reflected risk (Table 4).[24] A total of 78.2% (n = 61) of all participants presented with a risk for depression, with the mean score = 30.4 ± 12.0 (minimum = 2, maximum = 52). In addition, 69.2% (n = 54; transgender = 8

Table 1. Self-Reported Demographic Information

Variable	Participants		
	All (N = 78)	Transgender (n = 12)	Nonbinary (n = 66)
	Mean ± SD		
Age, y	19 ± 1	19 ± 1	19 ± 1
Height, cm	166.8 ± 8.6	166.8 ± 8.6	166.9 ± 8.6
Weight, kg	71.9 ± 19.3	67.7 ± 25.6	72.7 ± 18.4
Body mass index	25.7 ± 6.1	24.0 ± 7.1	26.0 ± 5.9
	% (No.)		
Ethnicity			
Asian American	3.8 (3)	0 (0)	4.5 (3/66)
Black/African American	2.6 (2)	0 (0)	3.0 (2/66)
Hispanic/Latinx	3.8 (3)	0 (0)	4.5 (3/66)
Multiethnicity	2.6 (2)	8.3 (1/12)	1.5 (1/66)
White/Caucasian	87.2 (68)	91.7 (11/12)	86.4 (57/66)
Academic status			
Freshman/first year	38.5 (30)	41.7 (5/12)	37.9 (25/66)
Sophomore/second year	28.2 (22)	41.7 (5/12)	25.8 (17/66)
Junior/third year	17.9 (14)	0 (0)	21.2 (14/66)
Senior/fourth or fifth year	15.4 (12)	16.7 (2/12)	15.2 (10/66)
Marching experience, y			
<1	5.1 (4)	8.3 (1/12)	4.5 (3/66)
1–3	1.3 (1)	0 (0)	1.5 (1/66)
4–6	62.8 (49)	66.7 (8/12)	62.1 (41/66)
7–9	30.8 (24)	25.0 (3/12)	31.8 (21/66)
Marching section			
Brass	50.0 (39)	66.7 (8/12)	47.0 (31/66)
Woodwind	39.7 (31)	25.0 (3/12)	42.4 (28/66)
Percussion	2.6 (2)	0 (0)	3.0 (2/66)
Auxiliary units	7.7 (6)	8.3 (1/12)	7.6 (5/66)
Factors involving mental health			
Previous mental health concern	96.2 (75)	100 (12/12)	95.5 (63/66)
Mental health clinician use	79.5 (62)	91.7 (11/12)	82.3 (51/66)
Psychiatric medication	47.4 (37)	33.3 (4/12)	50.0 (33/60)
Previous mental health hospitalization	7.7 (6)	8.3 (1/12)	7.6 (5/66)
Suicidality	6.4 (5)	8.3 (1/12)	6.1 (4/66)
Drug overdose	1.3 (1)	0 (0)	1.5 (1/66)

of 12 [66.7%], nonbinary = 46 of 66 [69.7%]) of participants were at risk for depression as well as prone to both state and trait anxiety. When we examined the percentage of participants at risk for all 3 MH concerns and seeking help from an MH clinician, 14.8% (n = 8 of 54) of those at risk for all 3 factors did not seek help from a specialized clinician.

Barriers to and Attitudes Toward Seeking MH Care

Barriers to seeking MH help are presented in Table 5. Time appeared to be one of the primary barriers to seeking MH help across GD MB artists, with 82.1% citing *lack of time to seek services* and 53.8%, *services not available during my free time.* Furthermore, 57.7% of GD MB artists believed *no one will understand* [their] *problems*. The barriers affecting GD MB artists the least were *lack of confidentiality* (22.1%, n = 17) and *fear of MB directors knowing members were using services* (23.1%, n = 18).

On the MHSAS, higher scores indicate more favorable attitudes toward seeking help. The average for all individual items was 5.3 ± 1.0, with the most favorable scores on items 3, *unhealthy-healthy*, and 5, *good-bad*, signifying that they perceived seeking help as healthy and good. Average scores for each of the 9 items are shown in Table 6. On the ATSPPH-SF, higher scores suggest more positive attitudes toward seeking professional help; overall, the mean score was 19.5 ± 5.0 (transgender = 17.5 ± 6.2, nonbinary = 19.6 ± 4.7). We did not compare groups, but we noted that the mean score for first-year students (17.7 ± 4.7) was lower than those at other academic levels (sophomores = 20.2 ± 5.0, juniors = 21.2 ± 2.8, seniors = 19.4 ± 6.7).

DISCUSSION

The purpose of our study was to explore the prevalence of anxiety and depression symptoms among GD collegiate MB artists and to evaluate their barriers to and attitudes toward seeking professional MH care. Greater psychological distress has been reported among GD individuals, given the adversity they often experience and the disparities they face attributed to minoritized stress (ie, self-stigma, prejudice, discrimination).[15] Overall, these findings suggest that GD MB artists displayed high levels of anxiety and depression but perceived professional MH care as healthy and good.

Anxiety and Depression

State and trait anxiety are related to the physical concepts of energy. State anxiety is similar to kinetic energy, as it is a process or reaction that may result in apprehension or tension potentially due to a threat or frightening situation. Specific to performing artists, higher levels of state anxiety are expected when performing in front of an audience. Normative values for state anxiety for female and male college students were 38.76 ± 11.95 and 36.47 ± 10.02, respectively.[21] In comparison, state anxiety across our GD collegiate MB artists was higher, with a mean of 52.0 ± 12.1. Conversely, trait anxiety manifests as persistent or repeated concerns and is a stable tendency of personality that represents predispositions to assessing a situation as threatening and will influence whether an anxiety response is initiated. Similar to elevated levels of state anxiety, scores for trait anxiety were higher (mean = 58.0) than the normative values for female (40.40 ± 10.15) and male (38.30 ± 9.18) college students.[21] The elevated scores for both state and trait anxiety scales are concerning and indicate the need to identify normative values across GD populations. Specifically in the transgender population, studies before 2017 indicated a prevalence of anxiety

Table 2. State Anxiety

Participants	State-Trait Anxiety Inventory—State Anxiety			
	% (No.)	Mean ± SD (CI)	Median	Interquartile Range
All (N = 78)	83.3 (65)	52.0 ± 12.1 (49.3, 54.7)	52.0	42.0–61.0
Transgender (n = 12)	91.7 (11/12)	51.8 ± 12.5 (43.8, 59.7)	51.0	42.3–63.0
Nonbinary (n = 66)	81.8 (54/66)	52.0 ± 12.1 (49.1, 55.0)	52.0	42.0–61.0

Table 3. Trait Anxiety

	State-Trait Anxiety Inventory—Trait Anxiety			
Participants	% (No.)	Mean ± SD (CI)	Median	Interquartile Range
All (N = 78)	93.6 (73)	55.2 ± 10.0 (53.0, 57.5)	58.0	47.0–63.0
Transgender (n = 12)	91.7 (11/12)	54.1 ± 12.6 (46.1, 62.1)	57.0	41.8–66.8
Nonbinary (n = 66)	93.9 (62/66)	55.4 ± 9.6 (53.1, 57.8)	58.0	49.5–62.3

symptoms and disorders ranging between 17% and 68%.[13] In comparison, we observed rates >91% for this group and nearly 82% for nonbinary individuals. Moreover, when assessing differences across university student populations, Vaag et al found a prevalence difference of 9.5% for anxiety symptoms in music and art students compared with the general student population.[9] The combination of performance stressors and the stressors of being in a marginalized community may predispose GD MB artists to higher levels of state anxiety.

Previous literature suggested that increased depression and suicidality were associated with stress, an expectation of rejection, internalized transphobia, and concealment.[16] In this sample of GD MB artists, 78.2% were at risk for depression, which was a significantly larger percentage compared with the general student population (46.9%).[35] Similarly, the mean score for GD MB artists (30.4 ± 12.0) was approximately 14 points higher.[35] Depression was a risk in nearly one-quarter of student-athletes, with females displaying higher risk.[4] In comparison with student-athletes and general students, elevated symptoms of depression were present in nearly the entire GD sample. This result is concerning and aligns closely with an earlier finding in which 73% of GD individuals scored at or above the clinical threshold for depression. Garver et al[17] explored various psychological components across US cisgender students; although the sample was primarily composed of student-athletes, MB artists accounted for nearly 11%.[36] Interestingly, MB artists displayed some of the highest scores for depression, with mean scores meeting the cutoffs for mild and moderate elevated symptoms for females and males, respectively. Marching band artists have been an understudied population of college students; however, they face similar physical and mental stressors to student-athletes and have disclosed being hospitalized due to suicidality. Unfortunately, it is rare to see medical oversight for this population across the US, with only a few universities providing athletic training services to their MBs. Health care providers, including ATs, can offer MH interventions such as instruction on coping mechanisms, time management skills, and self-care techniques to reduce the prevalence of anxiety and depression symptoms. In the same way, an AT can provide GD artists a support system, early identification of symptoms, and appropriate and timely referrals when necessary.

Barriers to and Attitudes Toward Seeking MH Care

Our data are consistent with previous literature, in which a lack of time was cited as the chief barrier to the use of MH services in medical students and student-athletes.[26,27] We acknowledge student-athletes' time constraints and requirements, which include their courseload, tutoring, and independent and group study in addition to the hours of practice, games, travel, and injury recovery. Marching band artists face these same factors as they navigate the college experience, leaving minimal opportunity to seek health resources typically available during normal business hours (ie, Monday to Friday, 8 AM to 5 PM). Moreover, both GD MB artists (57.7%) and medical students (33%) expressed concern that MH professionals would not be able to understand their problems.[26] Interestingly, a lack of confidentiality was not a primary concern for the sample of GD MB artists, as it was for medical students and student-athletes.[26,27] Overall, GD artists not perceiving stigma or displaying fear about others knowing they were seeking MH care as barriers to care was an encouraging finding, especially compared with student-athletes.[27] For many years, stigma toward MH care use has been a primary concern. Still, organizations, including colleges and universities, have put forward efforts to normalize talking about MH and seeking MH resources.

Overall rates of personal and perceived stigma decreased over 10 years in college students; meanwhile, those with depression demonstrated a noticeable decrease in personal stigma but not perceived stigma.[37] With the decrease in stigma on college campuses, students may realize it is more acceptable and admirable to seek help, which may often be necessary to work out any emotional problems or fears. Participants in this study primarily perceived MH care as healthy, good, useful, and healing. The 2 lowest scores (4.9) were for empowering and satisfying, well above the midpoint score (3.5) of the scale. Nearly 80% of GD artists stated they had sought help from an MH clinician, and 47% had used psychiatric medication. These results align with previous literature indicating increased treatment-seeking rates for both past treatment and consideration of future treatment for all college-age students and student-athletes from 2011–2012 to 2018–2019.[38]

Clinical Implications

Regardless of whether the stigma of MH has diminished through the years, GD individuals in this study still faced stigma and lack of acceptance in their community, at times even from health care practitioners. Fortunately, help-seeking for MH conditions across GD and cisgender individuals do not differ, but it should be noted that GD individuals were

Table 4. Depression

	Center for Epidemiologic Studies Depression Scale			
Participants	% (No.)	Mean ± SD (CI)	Median	Interquartile Range
All (N = 78)	78.2 (61)	30.4 ± 12.0 (27.4, 32.8)	29.0	21.0–40.3
Transgender (n = 12)	66.7 (8/12)	29.5 ± 15.9 (19.4, 39.6)	25.5	20.0–47.8
Nonbinary (n = 66)	80.3 (53/66)	30.2 ± 11.3 (27.4, 33.0)	29.5	21.0–39.3

Table 5. Barriers to Seeking Help

Barrier[a]	Participants, % (No)		
	All (N = 78)	Transgender (n = 12)	Nonbinary (n = 66)
1. Lack of available services during my free time	48.7 (38)	33.3 (4/12)	51.5 (34/66)
2. Lack of time to seek services	82.1 (64)	83.3 (10/12)	81.8 (54/66)
3. Services not available during my free time	53.8 (42)	50.0 (6/12)	54.5 (36/66)
4. Difficulty finding or accessing services	48.7 (38)	33.3 (4/12)	51.5 (34/66)
5. Lack of confidentiality[b]	22.1 (17)	27.3 (3/11)	21.2 (14/66)
6. Fear diagnosis will become part of my school record	47.4 (37)	33.3 (4/12)	50.0 (33/66)
7. Fear the dean's office will know I am using services	24.4 (19)	16.7 (2/12)	25.8 (17/66)
8. Fear the athletic director (band director) will know I am using services	23.1 (18)	8.3 (1/12)	25.8 (17/66)
9. Fear of stigma for using services	38.5 (30)	50.0 (6/12)	36.4 (24/66)
10. Fear using services will have a negative impact on my career[b]	47.4 (36)	36.4 (4/11)	49.2 (32)
11. Fear coaches (directors) will know I am in counseling[b]	26.0 (20)	18.2 (2/11)	27.3 (18/66)
12. Belief that "no one will understand my problems"	57.7 (45)	58.3 (7/12)	57.6 (38/66)
13. Counselor will not understand needs of athletes (band members)[b]	36.4 (28)	36.4 (4/11)	36.4 (24/66)
14. Fear I will be recognized	43.6 (34)	50.0 (6/12)	42.4 (28/66)
15. Fear teammates (band members) will know I am using services	25.6 (20)	16.7 (2/12)	27.3 (18/66)
16. Fear I will be considered weak	43.6 (34)	33.3 (4/12)	45.5 (30/66)
17. Lack of knowledge of services offered	52.6 (41)	58.3 (7/12)	51.5 (34/66)

[a] Items are reproduced in their original format.
[b] Data missing for 1 participant (n = 77).

less likely to seek help for physical problems.[14] We should recognize that health care providers may be unsure about or uncomfortable treating GD patients. Specifically, among sports medicine physicians, only 26.6% reported having worked with an athlete who identified as transgender or gender nonconforming.[39] Physicians also commented that they collaborated with endocrinologists, behavioral health specialists, and ATs when caring for transgender athletes.[39] Athletic trainers can work within a multidisciplinary team to provide MH care for their patients. Additionally, because ATs interact consistently with their patient populations, GD individuals may feel comfortable disclosing both mental and physical health concerns to the AT, which in turn would allow for timely treatment and referrals. For MBs, access to a dedicated AT to assist during MH challenges by triaging and facilitating support resources would benefit the organization. Furthermore, we suggest improved collaboration among organized extracurricular programs such as MB and MH services within institutions. Examples of these collaborations and possible changes can include group counseling sessions before or immediately after rehearsals, appointment times outside the usual work weeks or hours to provide more flexibility for all students, and telehealth appointments with an MH professional.

Table 6. Scores for the Mental Help Seeking Attitude Scale

No.	Item	Participants		
		All (N = 75)	Transgender (n = 10)	Nonbinary (n = 65)
1	Useless–useful	5.6 ± 1.6	5.5 ± 1.5	5.6 ± 1.7
2	Unimportant–important (R)	5.0 ± 2.0	4.5 ± 2.2	5.0 ± 1.9
3	Unhealthy–healthy	6.4 ± 1.1	6.9 ± 0.3	6.4 ± 1.1
4	Ineffective–effective	5.0 ± 1.4	4.8 ± 1.6	5.0 ± 1.4
5	Bad–good (R)	5.7 ± 1.5	4.9 ± 2.3	5.8 ± 1.3
6	Hurting–healing (R)	5.4 ± 1.3	5.1 ± 1.4	5.5 ± 1.3
7	Disempowering–empowering	4.9 ± 1.8	4.9 ± 2.1	4.9 ± 1.7
8	Unsatisfying–satisfying (R)	4.9 ± 1.5	4.3 ± 1.4	5.0 ± 1.5
9	Undesirable–desirable (R)	5.0 ± 1.7	4.7 ± 1.9	5.1 ± 1.7
Average of individual averages of items		5.3 ± 1.0	5.1 ± 1.2	5.3 ± 1.0
Total score		47.8 ± 9.2	45.6 ± 10.4	48.1 ± 9.0

Abbreviation: R, reverse scored.
[a] Seventy-five of 78 participants completed this scale.

Limitations and Future Research

We acknowledge the limitations of our work. The tools used to examine anxiety and depression risk have primarily been developed and applied across the sexes and are not inclusive of all gender identities. Therefore, all data presented and analyzed were strictly descriptive, with no further comparison. Although validated instruments, the STAI and CES-D are self-reported, and we can only assume they were completed accurately and truthfully. Future researchers should explore normative values for the GD population on commonly used MH outcome measures. Also, investigators should seek to recruit a larger sample of GD participants and pursue a qualitative approach to detail their lived experiences and what support systems and policies are provided to them through their institutions.

CONCLUSIONS

Among GD MB artists, we identified high rates of clinical symptoms of depression and anxiety compounded by the mental and physical challenges of MB. As theorized by the minority stress model, GD individuals' experiences with self-stigma, prejudice, and discrimination may place them at higher risk for psychological distress, suicidality, trauma, and family distress. The data are consistent with those from other minority populations and above the normative values for cisgender students. The lack of help-seeking behaviors in nearly 15% of at-risk participants highlights the need for specialized resources for GD patients and students who participate in MB. Although improving access to MH care is an ongoing dialogue across many colleges and universities, having consistent medical oversight by ATs can provide GD MB artists with an ally who will

supply patient-centered care and adequate resources during MH challenges.

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