

Pre-Game Music and Its Effect on Athletes

Mathew Furer, Nicole Pollino*

David Posnack Jewish Day School, Davie, FL, USA

Email: *tfurer@posnackschool.org

How to cite this paper: Furer, M., & Pollino, N. (2026). Pre-Game Music and Its Effect on Athletes. *Open Journal of Social Sciences*, 14, 683-695.

<https://doi.org/10.4236/jss.2026.1410032>

Received: September 17, 2026

Accepted: October 26, 2026

Published: October 29, 2026

Copyright © 2026 by author(s) and Scientific Research Publishing Inc. This work is licensed under the Creative Commons Attribution International License (CC BY 4.0).

<http://creativecommons.org/licenses/by/4.0/>



Open Access

Abstract

This study examined whether listening to music before a brief maximal-effort task is associated with self-reported energy, focus, and sprint performance among high school athletes, and gathered comparative survey data from college and professional athletes. Participants included 150 high school athletes (93 male, 57 female) who completed an online survey on pre-game listening habits and genre preference; a subset of 20 high school athletes who completed a four-day physical experiment consisting of a 30-second maximal-effort run under four fixed conditions, presented in the same order for every participant (Day 1: an assigned individual song classified as rap, “One Dance” by Drake; Day 2: a second assigned individual song, “Timeless” by The Weeknd and Playboi Carti; Day 3: a self-selected song; Day 4: no music); and 26 college or professional athletes who completed a parallel survey. Primary measures were self-reported energy or focus, self-reported song or genre preference, and 30-second running distance. A large majority of respondents in both surveys reported listening to music before competition and associated it with feeling more energized or focused, and self-reported energy was lower on the no-music day than on the music days. Because the no-music condition always occurred last and the two individual-song conditions used a single song each, effects of order, fatigue, practice, and expectation cannot be separated from the effect of music itself, and genre cannot be isolated from other song-specific features. Findings therefore support a general association between pre-competition music and self-reported readiness but do not support conclusions about which genre, or personal preference specifically, produces the largest benefit.

Keywords

Pre-Game, Music, Performance, Maximize Capabilities, Psychological, Physical, Sports, Mental, Athletes, Professionals

1. Introduction

According to Matija Ferjan, a marketing specialist and freelance writer, “Roughly

7.11 billion people listen to music” (Ferjan, 2022). Bernard Van Isacker, the chief editor for the Side Line magazine, explains that people frequently listen to music while performing exercise or physical work (Van Isacker, 2024). For example, “Music can be used to get us in the ‘zone,’ allowing us to get our heads right before a practice, game, or lift. Music can help block out distractions, improving focus, by connecting certain songs to certain emotions,” says Mike Richards, a paramedic who studied exercise science (Richards, 2023). However, Lia Peralta shows the differing emotions that music can cause: “In a 2011 research paper, 43 students were given the job of recognizing happy and sad faces while listening to happy or sad music in the background by researchers from the University of Groningen. Participants noticed more cheerful faces when upbeat music was played, while the opposite was true when sad music was played” (Peralta, 2021). This paper explores the psychological and physical associations between music and athletic performance, and, using self-report and a brief physical experiment, examines how individual song and genre preference relate to those associations. Consequently, this study aims to examine how pre-competition music, and athletes’ own song and genre preferences, relate to self-reported energy and focus and to short-duration sprint performance among high school athletes. This is narrower than the goal of characterizing athletes’ broader behavior or team collaboration, which this study did not measure.

2. Literature Review

The following review draws primarily on peer-reviewed research examining music’s psychological and physiological associations with exercise and sport, most notably a randomized, repeated-measures laboratory study on pre-task music tempo (Pusey et al., 2023) and peer-reviewed work on musical preference, personality, and emotional response (Langmeyer et al., 2012; Eerola et al., 2016). Peer-reviewed research specifically on pre-competition music in team and individual sport settings is limited, so this review also incorporates commentary from sport psychologists, certified trainers, and industry publications. These practitioner and trade sources are noted explicitly where used and are treated as supplementary context rather than as evidence of equal weight to the peer-reviewed studies.

2.1. Psychological Aspects of Music

“There is no other stimulus on earth that simultaneously engages our brains as widely as music does,” says Brian Harris, a certified neurologic music therapist at Harvard-affiliated Spaulding Rehabilitation Hospital (Harvard Health Publishing, 2021). Consistent with this, Christopher Pusey and colleagues, in the Department of Sport Sciences, conducted a peer-reviewed, repeated-measures study in which 40 adults were “exposed to no music, slow-tempo, and fast-tempo music conditions in a randomized order,” using the same electronic track rendered at 110 BPM (slow-tempo) and 140 BPM (fast-tempo) (Pusey et al., 2023). Following musical

exposure, participants completed a rowing test. “Both fast- and slow-tempo pre-task music exposure led to increased arousal and positive affective state when compared to no music,” and “fast-tempo music led to a significantly higher mean power output than slow-tempo music” (Pusey et al., 2023). Because this study randomized condition order across participants, its findings offer stronger support for a causal association between music and psychological state than the retrospective, fixed-order design used later in this paper (see Section 4.3 and Section 7.1).

More broadly, Bradley Busch, a chartered psychologist with a background in sport psychology, explains that listening to music may improve performance in part by distracting athletes from negative thoughts that can otherwise consume attention and hinder performance (Busch, 2019). Music may also engage specific neural and neurochemical systems: Megan Hoffer, a certified music therapist, states that “active music-making positively affects neurotransmitters, such as dopamine and serotonin, that influence mood”, and that these neurotransmitters are linked to focus, concentration, mood, motivation, anxiety, and pain (Hoffer et al., 2022). Together, this literature suggests that exposure to music is associated with heightened positive psychological activation in athletes.

2.2. Physical Aspects of Music

A frequently cited physical mechanism is tempo, measured in beats per minute (BPM). Kris Baker, president of Demosphere, a sports-management technology company, writes that “during physical activity, the right music can increase intensity by almost 70 percent,” and recommends that athletes identify their ideal BPM (Baker, 2015); this figure comes from an industry blog rather than a peer-reviewed source and should be read as illustrative rather than as an established effect size. Consistent in direction with Pusey et al.’s (2023) laboratory finding that faster tempo increased power output, Busch (2019) reports that basketball players prone to performing poorly under pressure converted more free throws after listening to upbeat music, which the author attributes to distraction from performance pressure. Music may also serve a social function: Dr. Sara Gilman, founder of Coherence Associates, notes that football teams have been known to play high-energy “tribal” music in the locker room before games to raise arousal and enhance team bonding (Gilman, 2023); this social-bonding claim is not something the present study measured and is included here only as background.

2.3. Personal Preference in Music

A substantial body of work, including peer-reviewed research, suggests that no single genre benefits all athletes equally, and that individual differences in personality and interpretation shape musical response. Gilman (2023) writes that “there are some general assumptions about which type of music is best used for creating a certain response; however, each athlete must discover what works best for them, as it is their interpretation of the music that determines their response.” In a peer-reviewed study, Alexandra Langmeyer and colleagues, at Bundeswehr University

in Munich, found that “individuals open to experience prefer reflective, complex, (e.g., classical) intense, and rebellious music (e.g., rock), whereas they dislike upbeat and conventional types of music (e.g., pop music),” while “extraverts, on the other hand, prefer upbeat and conventional and energetic and rhythmic types of music (e.g., rap/hip-hop)” (Langmeyer et al., 2012). This indicates that personality plays a meaningful role in shaping musical preference. Similarly, a peer-reviewed case study by Tuomas Eerola and colleagues, in the Department of Music at Durham University, found that when people listened to unfamiliar sad music, individual responses varied along three patterns—relaxed, moved, and nervous—rather than converging on a single reaction (Eerola et al., 2016). Together, these peer-reviewed findings support treating musical response as an individual-level, rather than purely genre-level, phenomenon, which is directly relevant to how the present study’s physical experiment is interpreted (see Section 4.3).

2.4. Athlete Testimonies

Personal testimonies from prominent athletes illustrate this individual variation, though they are anecdotal rather than systematic evidence and are presented here as supplementary context. Samuel West, writing for PHMG, quotes Michael Phelps, a 28-time Olympic gold medalist swimmer: “I have walked out to race with my headphones on throughout my whole career and listen to music until the last possible moment. It helps me to relax and get into my own little world” (West, 2022). James Brinsford reports that LeBron James listens to hip-hop music while lifting weights early in his pre-game routine, then switches to classical music, such as Beethoven, to relax his body before ramping back up roughly 45 minutes before tip-off (Brinsford, 2023). Tom Brady, a seven-time Super Bowl champion, describes using “music to get you amped up or meditation to calm you down” as alternative pre-game strategies (Brady, 2021). These accounts illustrate that the same broad goal—mental readiness before competition—can be pursued through different, individually chosen combinations of music, silence, or other routines.

3. Research Question and Hypotheses

Research Question: Among high school athletes, is listening to music before a brief maximal-effort task associated with higher self-reported energy and focus than not listening to music, and are self-reported song or genre preferences associated with those self-reports and with 30-second sprint distance?

Based on the literature reviewed above, three hypotheses guided this study, each tied to an outcome the study measured:

- H1: Athletes will report higher energy or focus after listening to music (assigned or self-selected) than after the no-music condition.
- H2: Self-reported energy during the self-selected song condition will not necessarily exceed self-reported energy during the assigned-song conditions, because individual song features such as tempo, familiarity, and lyrical content—

not personal choice alone—are expected to drive the response (see Section 2.3).

- H3: Self-reported song and genre preference will vary across individuals and will not converge on a single genre being most beneficial for all athletes.

This study does not hypothesize about, and does not measure, athletes' behavior toward teammates or team collaboration; any discussion of team-level effects in Section 8 (Implications) is explicitly identified as speculative and outside the scope of the data collected.

4. Methods

This study used a mixed-methods design with three parts: a survey of high school athletes, a four-day physical experiment with a subset of high school athlete volunteers, and a parallel survey of college and professional athletes.

4.1. Participants

High school participants were recruited from the researcher's social media account via a link that allowed athletes in high school to respond to the questions. Additionally, the researcher sent out messages to peers from other high schools, asking them to share the link with other athletes as well. Eligibility required that respondents be currently enrolled in grades 9 - 12 and currently participating in a school or club sport. The 150 survey respondents were drawn from [insert school or community context]; sport distribution for this group was not collected in the original survey and should be added here if available. Of the 150 respondents, 20 volunteered for the physical experiment. Volunteers were solicited from the original survey based on who indicated willingness to complete follow-up testing and were not randomly sampled from the full respondent pool, so this subgroup may not be representative of all survey respondents. Participation in both the survey and the physical experiment was voluntary. Respondents were informed that their responses were anonymous and would be used for research purposes only, and no directly identifying information was collected; physical-experiment participants were identified only by participant number in the recorded data. The athletes were required to check a box on the survey that said, "By clicking 'I agree' you are anonymously consenting in your participation of my research study." In this case, every person consented to participate prior to filling out the surveys. College and professional athletes ($n = 26$) were recruited by personal contacts that the researcher knew who sent the links out to teammates and peers from other collegiate/professional teams and were likewise not selected through probability sampling. Eligibility required current or former participation in a collegiate or professional sport. Sport distribution for this group is reported in Section 5.3.

Note: several recruitment, consent, and school/community details above were not fully documented in the original study materials and are marked with bracketed placeholders. These should be completed with the actual procedures used before the manuscript is finalized or submitted for review.

4.2. High School Athletes Survey

A survey was sent to high school athletes in grades 9 through 12 and received 150 responses. The following questions separated respondents into groups:

- Before you play in a sports competition/game, do you listen to music?
- Are you male or female?

These questions separated athletes into male and female groups, and into a group that listens to music before competition and a group that does not.

Athletes who listen to music were then asked additional questions to examine their emotional response and genre preference:

- How does this music make you feel?
- Have you ever felt that specific genres have a better impact on your performance?

Athletes who reported not listening to music were instead asked a short-response question about their pre-game routine:

- How do you prepare yourself before a game since you do not listen to music?

4.3. Physical Experiment

Based on survey responses, 20 athletes volunteered to complete a 30-second maximal-effort run under four conditions, with one condition completed per day across four separate days to reduce within-day fatigue. The four conditions were presented in the same fixed order for every participant and were not randomized or counterbalanced across participants; this is a major limitation of the design and is discussed in Section 7.1.

- Day 1 (assigned individual song): participants listened to “One Dance” by Drake, an individual song classified by the researcher as rap/dancehall, selected because it was the most frequently named pre-game song in the survey.
- Day 2 (assigned individual song): participants listened to “Timeless” by The Weeknd and Playboi Carti, selected for its contemporary prominence.
- Day 3 (self-selected song): participants chose their own pre-run song.
- Day 4 (no music): participants ran without listening to any music.

These conditions are described throughout this paper as individual-song conditions rather than genre conditions. A single song cannot isolate the effect of genre from other song-specific features such as tempo, lyrical content, familiarity, the specific artist, or personal association, and the self-selected condition also varied across all of these features from participant to participant. Findings from Days 1 through 3 should therefore be interpreted as reflecting participants’ responses to the specific songs used (or, on Day 3, to whichever song each participant chose), rather than as evidence about musical genre as a category.

4.4. College/Professional Athlete Survey

A parallel survey was distributed to college and professional athletes and received 26 responses. The questions closely paralleled those used in the high school survey to allow comparison. This survey was intended to provide context from athletes

competing at higher levels, who may have access to methods and resources not available to high school athletes.

5. Results

5.1. High School Athletes Survey Results (n = 150)

Of the 150 high school athlete respondents, 93 were male and 57 were female. In total, 136 respondents (90.7%) reported listening to music before a game, while 14 (9.3%) reported that they do not.

Among the 86 male respondents who answered the follow-up feeling question, 41 reported that music “makes them feel energized and ready to play,” and 34 reported that it “makes them feel focused and ready to play.” Among the 50 female respondents who answered this question, 41 reported feeling “energized and ready to play,” and 6 reported feeling “focused and ready to play.” Only 2 male and 2 female respondents (4 of 136, 2.9%) reported that music does not make a difference to them; the remaining 132 of 136 respondents (97.1%) reported some positive effect (energized, focused, relaxed, or a combination). This suggests that the large majority of athletes who listen to music associate it with feeling more energized or focused before competition. Among male respondents who answered the genre-impact question (78 responses), 48.7% (38 participants) said hip-hop had the greatest impact, 12.8% (10 participants) said pop, and 11.5% (9 participants) said rap; the remainder cited rock, classical, or country music. Among female respondents (50 responses), 34% (17 participants) said hip-hop had the greatest impact and 36% said pop, with the remaining respondents citing rap, gospel, or rock. When asked to name a go-to pre-game song, 48 respondents named rap songs, 14 named pop/R&B songs, 6 named rock/metal songs, 8 named international/non-English songs, 2 named country songs, and 3 named instrumental songs, indicating that rap songs were the most commonly named pre-game choice among these respondents.

Athletes who reported not listening to music described a range of alternative pre-game routines, including relaxing and breathing in silence, building confidence through internal thoughts, talking with friends, and physical warm-up exercises. This suggests that athletes who do not use music before competition nonetheless rely on some form of individual pre-game routine.

5.2. Physical Experiment Results (n = 20)

On Day 1, participants listened to “One Dance” by Drake; 85% (17 participants) reported feeling energized, 10% (2) reported feeling tired, and 5% (1) reported feeling the same as before the run. On Day 2, participants listened to “Timeless” by The Weeknd and Playboi Carti; 45% (9) reported feeling energized, 40% (8) reported feeling the same as the day before, and 15% (3) reported feeling tired. On Day 3, participants selected their own song; 60% (12) reported feeling energized, 25% (5) reported feeling the same as the day before, and 15% (3) reported feeling tired. Of the self-selected songs, 60% (12) were rap songs, 25% (5) were pop songs,

10% (2) were country songs, and 5% (1) was an international/non-English song. On Day 4, participants ran without music; 50% (10) reported feeling tired, 35% (7) reported feeling energized, and 15% (3) reported feeling the same on all days.

The number of participants reporting feeling energized declined from 17 of 20 (85%) on Day 1 to 7 of 20 (35%) on Day 4. In absolute terms this is a decrease of 10 participants, which is a 50-percentage-point drop (85% to 35%) and a 58.8% relative decline in the number of participants reporting feeling energized (10 fewer of the original 17, or 10/17). Open-ended responses reflected a similar pattern: on Day 1, one participant wrote, “30 seconds already passed??? I felt like it had already passed a bit too quickly,” while on Day 4, four participants specifically mentioned being bored, with one writing, “boring, no music to motivate me.” Because the no-music condition was always presented on Day 4, this decline cannot be attributed to the absence of music alone; cumulative fatigue, reduced novelty, and participants’ awareness that Day 4 was the final and “no-music” session are equally plausible contributors (see Section 7.1).

On the more direct energy-comparison questions, 80% (16 of 20) felt more energized on Day 1 relative to their own baseline, compared with 90% (18 of 20) who felt less energized on Day 4 relative to having music. On Day 2, 60% (12) felt more energized and 35% (7) felt less energized compared to Day 1. On Day 3, 45% (9) felt more energized, 15% (3) felt less energized, and 20% (4) felt the same across all three music days, with 3 additional participants (15%) feeling the same as Day 2 and 1 participant (5%) feeling the same as Day 1.

Regarding distance run, on Day 2, 50% (10) ran the same distance as Day 1, 45% (9) ran farther, and 5% (1) ran a shorter distance. On Day 3, 45% (9) ran farther than both previous days, 40% (8) ran the same distance, and 15% (3) ran shorter than both days. On Day 4, 50% (10) ran a shorter distance than previous days, 35% (7) ran the same distance as previous days, and 15% (3) ran farther than previous days [corrected from the original draft, which had mistakenly labeled this 15% group as running “the same distance” a second time; identifies this group as running farther].

Of the 20 physical-experiment participants, 95% (19) said they would rather have music before a game, and 5% (1) said they would rather not. Representative open-ended responses included: “Having music either before or during my workout improves my mood, mentality, and drive when I’m working out. I need music to increase my motivation while I’m working out. I feel I can push my limits while having music”; “I like listening to music before I do activities because it gets me in the mindset to do the activity”; and “I liked having music because it motivated me.”

5.3. College/Professional Athlete Survey Results (n = 26)

Of the 26 respondents, 34.6% (9) played baseball, 34.6% (9) played basketball, 11.5% (3) played football, and one respondent each played tennis, softball, golf, or soccer, with one additional coach/former basketball player. Respondents repre-

sented Alcorn State University, Brandeis University, Bucknell University, Case Western Reserve University, Florida Atlantic University, Florida Tech University, Miami Dade College, Middle Tennessee State University, the Naval Academy, Waynesburg University, Western Michigan University, and Yeshiva University, along with two professional athletes, one playing for the DC Defenders and one unspecified.

Of the 26 respondents, 20 (76.9%) reported listening to music before a game, while 6 (23.1%) reported that they do not. Among respondents who named a genre, 47.1% (8 of 17) said rap and 17.6% (3 of 17) said hip-hop, with the remainder spread across jazz, classical, country, yacht rock, and other categories. Go-to pre-game artists named included Zack Bryan (country), Gwen Stefani (pop/R&B), and NBA Youngboy (rap), among others, suggesting a wide range of individual preference. One college coach and former player stated, “As a high-level coach, I just asked my players to have a routine to mentally prepare, while I’ll provide them tools and ensure that they are physically prepared to prevent injury and to put them in the best spot to succeed,” and several other respondents similarly described having a predetermined mental-preparation routine before games.

When asked whether a specific genre had benefited them more than others, 65% (13 of 20 who listen to music) said yes, with 5 citing rap, 4 citing hip-hop, 2 citing country, and others citing worship music or yacht rock; 35% (7) said no specific genre stood out. When asked whether they would recommend high school athletes listen to music before a game, 69.2% (18 of 26) said yes, 26.9% (7) said it does not make a difference, and 3.8% (1) said no.

6. Discussion

This study’s first hypothesis (H1)—that music before competition would be associated with higher self-reported energy or focus than no music—is broadly supported by the data. In the high school survey, 90.7% (136 of 150) of respondents reported listening to music before a sports competition, and 97.1% (132 of 136 respondents who listen to music) reported that it made them feel energized, focused, or otherwise positively affected. In the college/professional survey, 76.9% (20 of 26) reported listening to music before competition. In the physical experiment, self-reported energy was higher on each of the three music days than on the no-music day (Day 4), consistent with H1, though the fixed condition order means this association cannot be fully separated from order, fatigue, or expectation effects (see Section 7.1).

The second hypothesis (H2)—that the self-selected song condition would not necessarily produce higher reported energy than the assigned-song conditions—is also supported. On Day 1 (the assigned rap-classified song), 85% of participants reported feeling energized, compared with 60% on Day 3 (self-selected song). Given the small sample size, this pattern should be interpreted cautiously, but it is consistent with the idea that specific song features (for example, the tempo or familiarity of “One Dance”) may have mattered as much as, or more than, per-

sonal choice itself.

The third hypothesis (H3)—that preference would vary across individuals rather than converge on one genre—is supported by both surveys and the peer-reviewed literature reviewed in Section 2.3. While rap and hip-hop were the most frequently cited genres in both the high school and college/professional surveys, a substantial minority of respondents cited pop, country, classical, jazz, gospel, yacht rock, or worship music as most beneficial to them personally. Consistent with [Langmeyer et al. \(2012\)](#) and [Eerola et al. \(2016\)](#), this suggests that no single genre is likely to be optimal for all athletes, and that individual preference and personality remain relevant to selecting pre-competition music.

Overall, these findings support a general association between pre-competition music and athletes' self-reported readiness, and are consistent with peer-reviewed laboratory evidence that music, independent of genre, is associated with increased arousal and positive affect before physical exertion ([Pusey et al., 2023](#)). However, because the physical experiment used a fixed, non-randomized condition order with a single song per music condition, these results should be read as descriptive and hypothesis-generating rather than as establishing a causal effect of genre or of personal music preference specifically (see Section 7.1 and Section 4.3).

7. Limitations

7.1. Design and Order Effects (Physical Experiment)

The most significant limitation of this study is the fixed, non-randomized order of the four physical-experiment conditions: every participant completed the two assigned-song conditions first, then the self-selected condition, and the no-music condition last, on Day 4. This design cannot separate the effect of music itself from the effects of condition order, cumulative practice or fatigue across four days of testing, or participants' awareness that the final day was the "no-music" condition. The steep decline in self-reported energy between Day 1 and Day 4 (see Section 5.2) is consistent with a music effect, but is equally consistent with increasing fatigue, decreasing novelty, or expectancy effects unrelated to music. In addition, because Days 1 and 2 used a single assigned song rather than a randomized set of songs within a genre, and the Day 3 condition allowed each participant to choose a different song, none of the three music conditions isolates genre from other song-specific features such as tempo, lyrics, familiarity, or personal association (see Section 4.3). Future replications should randomize or counterbalance condition order across participants and sample multiple songs per genre (see Section 10).

7.2. High School Athletes Survey

The high school survey received a reasonably large sample ($n = 150$) and was administered and organized consistently across respondents. As with any self-report survey, responses are subject to recall and social-desirability bias, and the survey did not verify respondents' sport, competitive level, or school context, which limits generalizability.

7.3. Physical Experiment

Beyond the order-effect limitation described in Section 7.1, the physical experiment had several additional limitations. First, most athletes completed the experiment at home without direct researcher supervision, so self-reported compliance and effort cannot be independently verified. Second, the running surface was inconsistent: roughly half of participants ran on a treadmill, which requires 5 - 10 seconds to reach maximum speed, while the remainder ran without a treadmill, making the recorded 30-second distances difficult to compare directly. Third, two participants became ill and were unable to complete the study on four consecutive days; they instead completed it over five days with a one-day gap, introducing an additional inconsistency in testing conditions across participants. Finally, the sample size ($n = 20$) is small, which limits the precision and generalizability of the physical-experiment findings.

7.4. College/Professional Athlete Survey

The survey sent to college and professional athletes used methods and wording consistent with the high school survey. However, it received only 26 responses, and respondents were not randomly sampled from a defined population of college or professional athletes. As with the physical experiment, this small, non-random sample limits how confidently these results can be generalized to a broader population of college or professional athletes.

8. Implications

Based on these results, coaches may consider encouraging athletes to explore a range of pre-competition music—including but not limited to rap and hip-hop, the genres most frequently cited as beneficial in this study—rather than assuming any one genre will work best for every athlete. Consistent with the personality-based findings of [Langmeyer et al. \(2012\)](#), athletes may benefit from identifying their own most motivating songs or genres before their season begins, in a manner similar to the self-selection condition used in this study's physical experiment (Section 4.3), rather than defaulting to whatever music is already playing in a shared team space.

This study did not directly measure team behavior, cohesion, or collaboration, so any suggestion about group-level effects here is speculative and drawn from supplementary literature rather than from this study's own data. [Gilman \(2023\)](#) suggests that shared pre-game music may contribute to team bonding; if coaches wish to use shared playlists for this purpose, that use should be understood as a distinct goal from optimizing any individual athlete's pre-competition readiness, and would need to be evaluated separately.

9. Conclusion

This study found that pre-competition music is associated with higher self-reported energy and focus among high school athletes relative to not listening to

music, consistent with prior peer-reviewed laboratory research (Pusey et al., 2023). No single genre or song emerged as most beneficial for all athletes: rap and hip-hop were the most frequently cited genres across both surveys, but a meaningful share of athletes reported the greatest benefit from pop, country, classical, or other genres, consistent with peer-reviewed research on personality and musical preference (Langmeyer et al., 2012; Eerola et al., 2016). Because the physical experiment used a fixed condition order and single-song conditions rather than randomized, genre-isolated conditions, these findings should be understood as an association between music and self-reported readiness, and as evidence that preference varies by individual, rather than as proof of a causal or genre-specific effect. Coaches and athletes may still find it useful to treat pre-competition music as one part of an individualized mental-preparation routine, while recognizing that the specific song or genre that works best is likely to differ from athlete to athlete.

10. Future Directions

A replication of this study should address its central design limitation by randomizing or counterbalancing the order of music and no-music conditions across participants, rather than always presenting the no-music condition last. It should also recruit a larger and more diverse sample of athletes across ages, sports, and genders, and should separate participants by sport to identify whether music preferences differ by sport. To more directly isolate genre from individual song features, future studies should use multiple different songs within each genre rather than a single representative song, and should include a broader set of genres. Rather than relying solely on a brief maximal-effort run, future work could examine music's association with performance during practices and real competitions, and could use wearable health-tracking devices to record heart rate or other physiological measures alongside self-reported mood, motivation, and energy. With additional time and resources, future research should also survey larger samples of professional athletes about the role of music across their careers. Together, these changes would allow stronger causal claims about how pre-competition music, and specific genres or songs within it, relate to athletic readiness and performance.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

References

- Baker, K. (2015). *Does Warm-Up Music Really Motivate?* Demosphere.
<https://doi.org/10.23736/S0022-4707.21.12093-6>
- Brady, T. (2021). *Tom's Gameday Checklist*. TB12.
<https://www.cbssports.com/nfl/news/tb12-diet-diary-we-tried-to-eat-like-tom-brady-43-year-old-super-bowl-champion-for-one-week/>
- Brinsford, J. (2023). LeBron James Mocked for Saying He Listens to Beethoven before Games. *Newsweek*.
<https://www.newsweek.com/lebron-james-mocked-listens-beethoven-before-games->

[1771884](#)

- Busch, B. (2019). *The Impact of Music on Performance in Sport*. InnerDrive.
<https://www.innerdrive.co.uk/blog/music-in-sport-performance/>
- Eerola, T., Vuoskoski, J. K., & Kautiainen, H. (2016). Being Moved by Unfamiliar Sad Music Is Associated with High Empathy. *Frontiers in Psychology*, 7, Article ID: 1176.
<https://doi.org/10.3389/fpsyg.2016.01176>
- Ferjan, M. (2022). *30+ People Listening to Music Statistics & Trends (2022)*. HeadphonesAddict. <https://headphonesaddict.com/listening-to-music-statistics/>
- Gilman, S. (2023). *Sports Psychology: Using Music to Enhance Sports Performance—Does It Really Work?* Coherence Associates.
<https://headphonesaddict.com/listening-to-music-statistics/>
- Harvard Health Publishing (2021). *Tuning in: How Music May Affect Your Heart*. Harvard Health.
<https://www.health.harvard.edu/heart-health/tuning-in-how-music-may-affect-your-heart>
- Hoffer, M., Avirett, J., Bocharski, K. et al. (2022). *How Music Affects Your Mind, Mood and Body*. Tallahassee Memorial Healthcare.
<https://www.tmh.org/healthy-living/blogs/healthy-living/how-music-affects-your-mind-mood-and-body>
- Langmeyer, A., Guglhör-Rudan, A., & Tarnai, C. (2012). What Do Music Preferences Reveal about Personality? *Journal of Individual Differences*, 33, 119-130.
<https://doi.org/10.1027/1614-0001/a000082>
- Peralta, L. (2021). *How Does Music Affect Society?* Save the Music Foundation.
<https://www.savethemusic.org/blog/how-does-music-affect-society/>
- Pusey, C. G., Haugen, T., Høigaard, R., Ivarsson, A., Røshol, A. W., & Laxdal, A. (2023). Put Some Music on: The Effects of Pre-Task Music Tempo on Arousal, Affective State, Perceived Exertion, and Anaerobic Performance. *Music & Science*, 6, 1-9.
- Richards, M. (2023). *How Music Enhances Athletic Performance & Training*. TeamBuildr.
<https://blog.teambuildr.com/environment-matters-the-influence-of-music-on-performance>
- Van Isacker, B. (2024). *5 Activities You Can Do while Listening to Music*. Side-Line.
<https://www.side-line.com/5-activities-you-can-do-while-listening-to-music/>
- West, S. (2022). *Athlete's Pre-Race Music Faves (and What You Can Learn from Them)*. PHMG.
<https://phmg.com/aus/blog/olympic-athletes-pre-race-music-what-businesses-can-learn/>