

A Systematic Review of Music Performance Anxiety (MPA) Research: Implications for Researchers, Schools of Music Administrators, Music Pedagogues, and PAM Clinicians

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Introduction

Researchers provide insight into the prevalence rates and experiences of MPA among various musician groups including students. Music educators and schools of music administrators, as well as therapists and counselors, should consider this research when making pedagogic, policy, curricular, and clinical decisions. However, and as noted by Brodsky³⁵ in 1996 and Kenny⁵¹ in 2005, researchers have propagated divergent theoretical orientations for conceptualizing, measuring, and responding to MPA and therefore may present application challenges to various stakeholders. These challenges become critical, particularly for music educators and pedagogues, when theoretical orientations and assessment strategies recognize and confirm the potential for MPA to facilitate musical performance. While researchers continue to investigate MPA, no known recent reviews offer updated insights into the coherence of definitions and theoretical orientations.

The purpose of this study is to systematically review and characterize MPA research according to disciplinary perspectives. This review hypothesizes that there are divergent theories and definitions of MPA across published research articles and that these differences are associated with academic backgrounds of the authors. The specific aims include:

1. Search and retrieve peer-reviewed articles, dissertations, and reviews on MPA to identify year of publication, academic backgrounds of author(s), type of publication (journal article, dissertation, reviews), and acknowledgment of music educator role.
2. Review peer-reviewed articles for definitions of MPA, theoretical orientations, and proposed frameworks/models.
3. Compare definitions of MPA, the recognition of facilitative anxiety, and acknowledgement of music educator role across academic backgrounds of primary authors.
4. Compare definitions of MPA across theoretical orientations that recognize facilitative anxiety.

Methods

Several online search engines and databases were used including, Google Scholar, Science & Medicine, ResearchGate, EBSCOhost, ScienceDirect, Oxford Journals, JSTOR, and ProQuest. Studies were retrieved between September 2018 and November 2018. The search terms included the following: music performance anxiety OR cognitive behavior therapy AND musicians OR facilitative music performance anxiety OR performance anxiety OR stage fright OR psychology of music OR anxiety AND performance OR music performance anxiety measurement scales OR MPA AND stage fright.

Peer-reviewed research articles, dissertations, and reviews published between 1971 and 2018 were systematically reviewed. The year of publication were determined from the citation generated by the database. The academic backgrounds of the first authors were identified from the names of the departments or programs found on the title pages, or by searching the internet for the authors' biographies. Studies were searched for any mention of the role of music teachers or educators in influencing MPA. Definitions of MPA were obtained from statements that defined or described MPA. Studies were reviewed for identification of applied theories and frameworks, including the distinction between unidimensional and multidimensional theories and models. Data regarding authors' academic backgrounds, MPA definitions, recognition of facilitative anxiety, and acknowledgment of the role of music educator were imported from an Excel file into SPSS software (SPSS V.25) and coded as variables for statistical analysis.

Results

The search yielded 28 dissertations, 10 reviews, and 44 journal articles (N=82) published between 1971 and 2018. A total of 36 (43.9%) authors were identified as having an academic background in music and 46 (56.1%) authors were identified as having an academic background in psychology/health. The role of music educator in relation to MPA was acknowledged in 32 (39%) studies, including two reviews, as shown in Table 1.

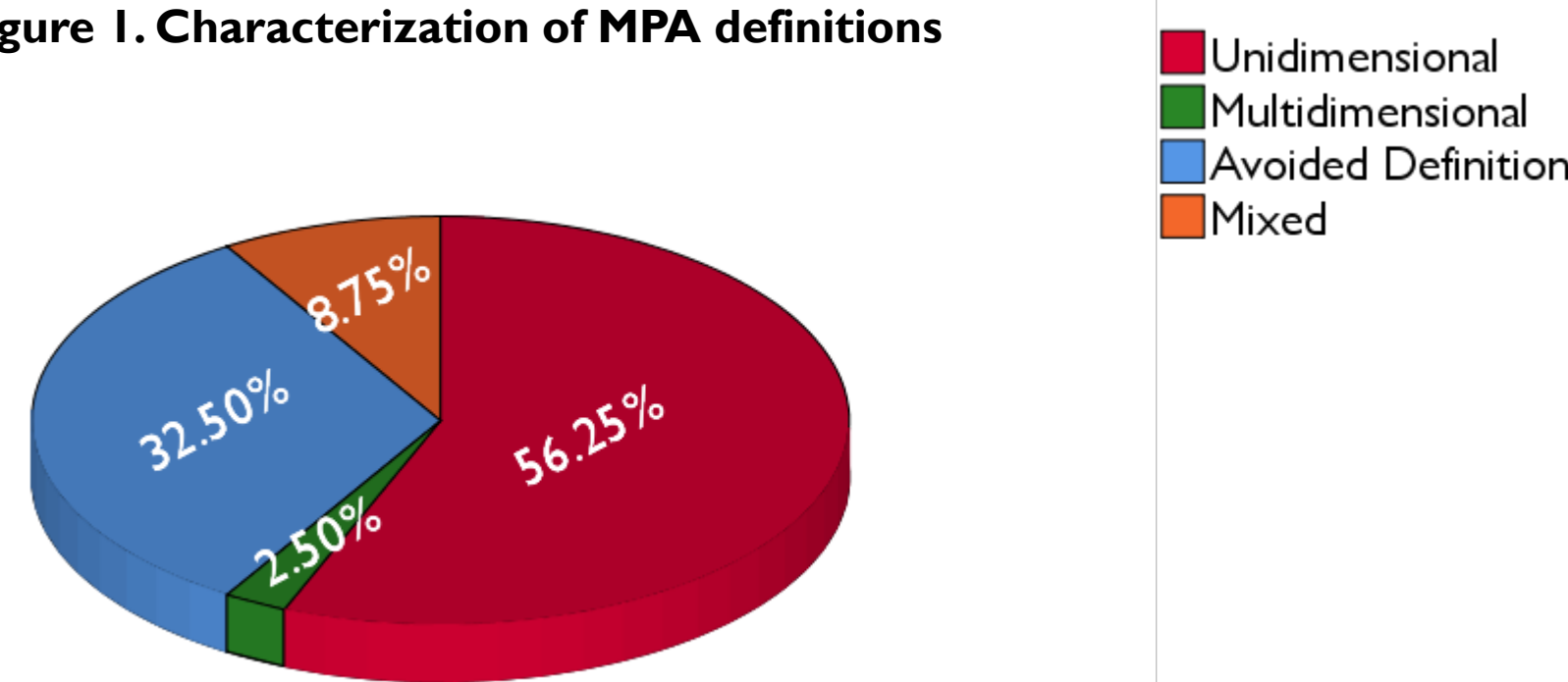
MPA literature published between 1971 and 2018

Table 1. Journal articles, dissertations, and reviews on MPA

Year	Author	Academic Background of Author	Role of Music Educator = T	Type of Publication
1971	Wardle, A.	Psychology		Dissertation
1973	Lund, D.R.	Psychology		Dissertation
1976	Agar, S.S.	Psychology		Dissertation
1979	Kendrick, M.J.	Psychology		Dissertation
1982	Brantigan, C.O., Thomas A. Brantigan, and Neil Joseph.	Psychology		Journal Article
1982	Hammann, D.L.	Psychology		Dissertation
1982	Kendrick, M.J.	Psychology		Dissertation
1982	Nefel, Klaus A., et al.	Psychology		Journal Article
1983	McCune, B.A.	Psychology		Dissertation
1983	Hammann, Donald L., and Martha Sobaje.	Psychology		Dissertation
1983	Stepcoe, A.	Psychology		Dissertation
1983	Crask, Michelle G., and Kenneth D. Craig.	Psychology		Dissertation
1983	Henderson, W.H.	Psychology		Dissertation
1984	Hingley, V.D.	Psychology		Dissertation
1984	Steedman, S.E.	Psychology		Dissertation
1984	Stepcoe, A.	Psychology		Dissertation
1987	Lehrer, P.M.	Psychology		Journal Article
1987	Wolfe, M.L.	Psychology		Dissertation
1987	Nagele, J.	Psychology		Dissertation
1989	Clark, D.B.	Psychology		Dissertation
1990	Abel, J.L.	Psychology		Dissertation
1990	Wesner, R.B., et al.	Psychology		Journal Article
1990	Salmon, P.G.	Psychology		Dissertation
1991	Gilbons, C.E.	Psychology		Dissertation
1991	Clark, D.B.	Psychology		Dissertation
1992	Frederickson, M., and Robert G.	Psychology		Journal Article
1994	Tartaglione, P.M.	Psychology		Dissertation
1995	Richard, J.J.	Psychology		Dissertation
1995	Skidmore, J.B.	Psychology		Dissertation
1993	Cox, W.J., Kenary, J.	Psychology		Journal Article
1994	Kee, J.	Psychology		Dissertation
1994	Bronson, Melissa.	Psychology		Journal Article
1995	Van K., et al.	Psychology		Journal Article
1995	Mor, S., et al.	Psychology		Journal Article
1996	Brodsky, W.	Psychology		Journal Article
1996	LeBlanc, A., et al.	Psychology		Dissertation
1998	Racy, B.	Psychology		Dissertation
1998	DeFoster, G.R.I.	Psychology		Dissertation
1999	Epstein, P.J., Hodnett, E.	Psychology		Dissertation
1999	Senshythyn, V.	Psychology		Dissertation
1999	Sinden, L.M.	Psychology		Dissertation
2000	Deen, R.	Psychology		Dissertation
2000	Zinn, M., et al.	Psychology		Journal Article
2000	Osborne, M.S., Franklin, J.	Psychology		Journal Article
2002	Kirchner, J.M.	Psychology		Dissertation
2003	Maroon, M.T.	Psychology		Dissertation
2003	Kokotaki, D., Davidson, J.V.	Psychology		Journal Article
2004	Ryan, C.	Psychology		Dissertation
2004	Kenny, D.T., et al.	Psychology		Journal Article
2004	Stoeb, B.S.	Psychology		Dissertation
2005	Yoshie, M., et al.	Psychology		Journal Article
2005	Paré, J.E.	Psychology		Dissertation
2005	Bouchier, H.	Psychology		Dissertation
2005	Konik, N.M.	Psychology		Dissertation
2005	Maye, L.H.	Psychology		Dissertation
2005	Kuan, F.S.	Psychology		Dissertation
2006	Fullagar, K., Knight, P.A., Sovern, H.S.	Psychology		Journal Article
2006	Patston, T.	Psychology		Journal Article
2005	Seker, S.S.	Psychology		Journal Article
2005	Braden, A.M., Osborne, M.S., Chagn, M.H., Ostroff, T.L.	Psychology		Journal Article
2005	Nicholson, D.R., Coody, M.V., Beck, J.C.	Psychology		Journal Article
2005	Robson, K.E.	Psychology		Dissertation
2005	Kenny, D.T., Ackermann, B.	Psychology		Journal Article
2005	Janin, C.J., et al.	Psychology		Journal Article
2006	Bannai, K., Kase, T., Endo, S., Oishi, K.	Psychology		Journal Article
2006	Tao, Z.	Psychology		Dissertation
2007	Guven, E.	Psychology		Journal Article
2007	Barbeau, A.K.	Psychology		Journal Article
2007	Joannou, C.I., et al.	Psychology		Journal Article
2008	Susic, B., Bazenka, B.	Psychology		Journal Article
2008	Toppoju, O., et al.	Psychology		Journal Article
2008	Sabino, A.D., Camargo, C.S., Chavez, M.H., Ostroff, T.L.	Psychology		Journal Article
2008	Nielsen, C., et al.	Psychology		Journal Article
2008	Cohen, S., Boder, E.	Psychology		Journal Article

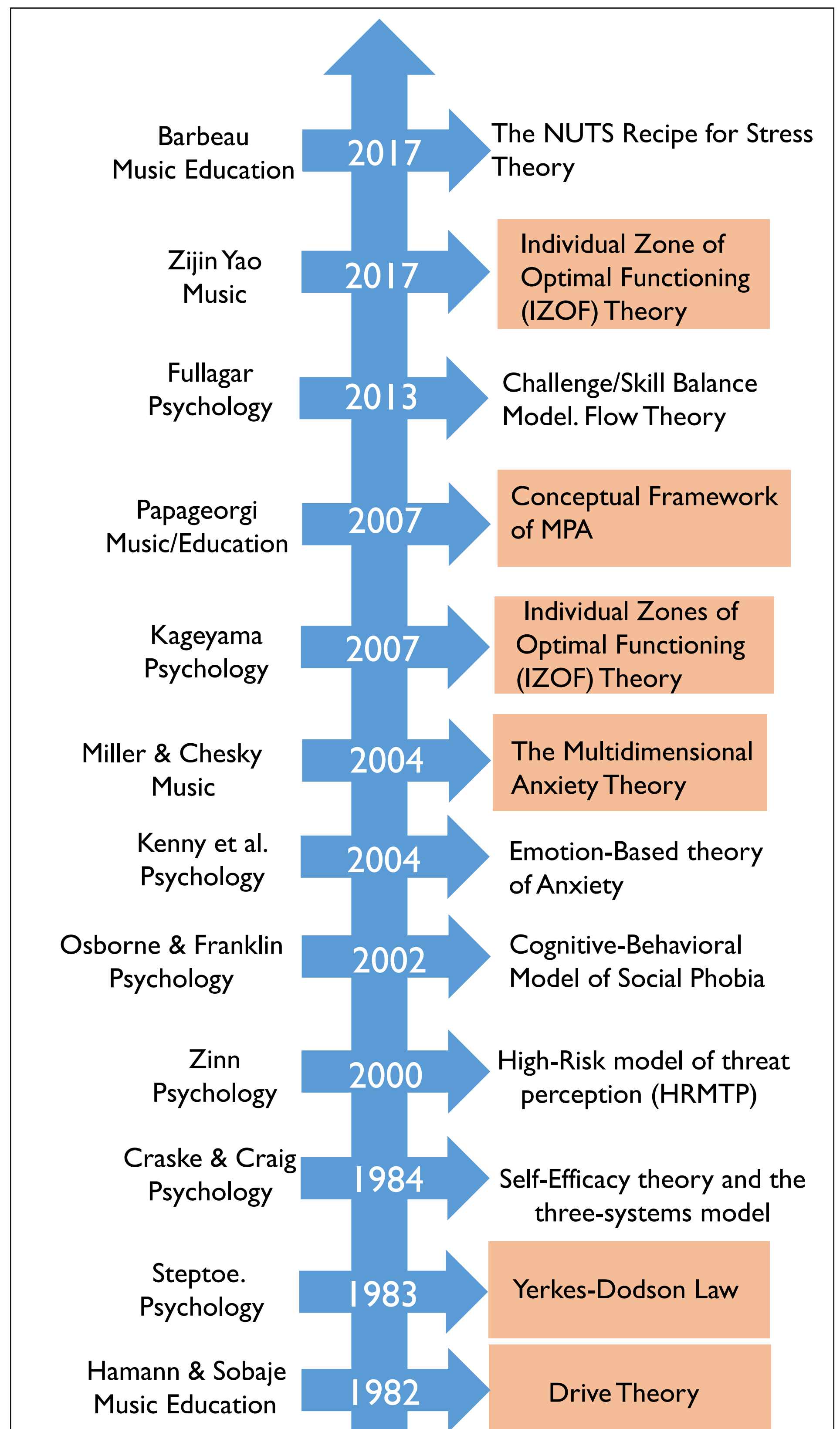
Definitions and theoretical orientations of MPA

Figure 1. Characterization of MPA definitions



More than half of studies (56%) referenced only the maladaptive influence of MPA or used the term "stage fright" as synonymous to MPA. As shown in Figure 1, these studies were classified as unidimensional. The second largest group of studies (32.5%) avoided defining MPA. Studies that described or defined MPA as unidimensional but recognized the potential of anxiety to help performance (facilitative anxiety) were considered mixed definitions (8.75%). Only 2.5% provided multidimensional definition of MPA that include both facilitative and debilitating influences.

Figure 2. Time line of MPA theories and frameworks

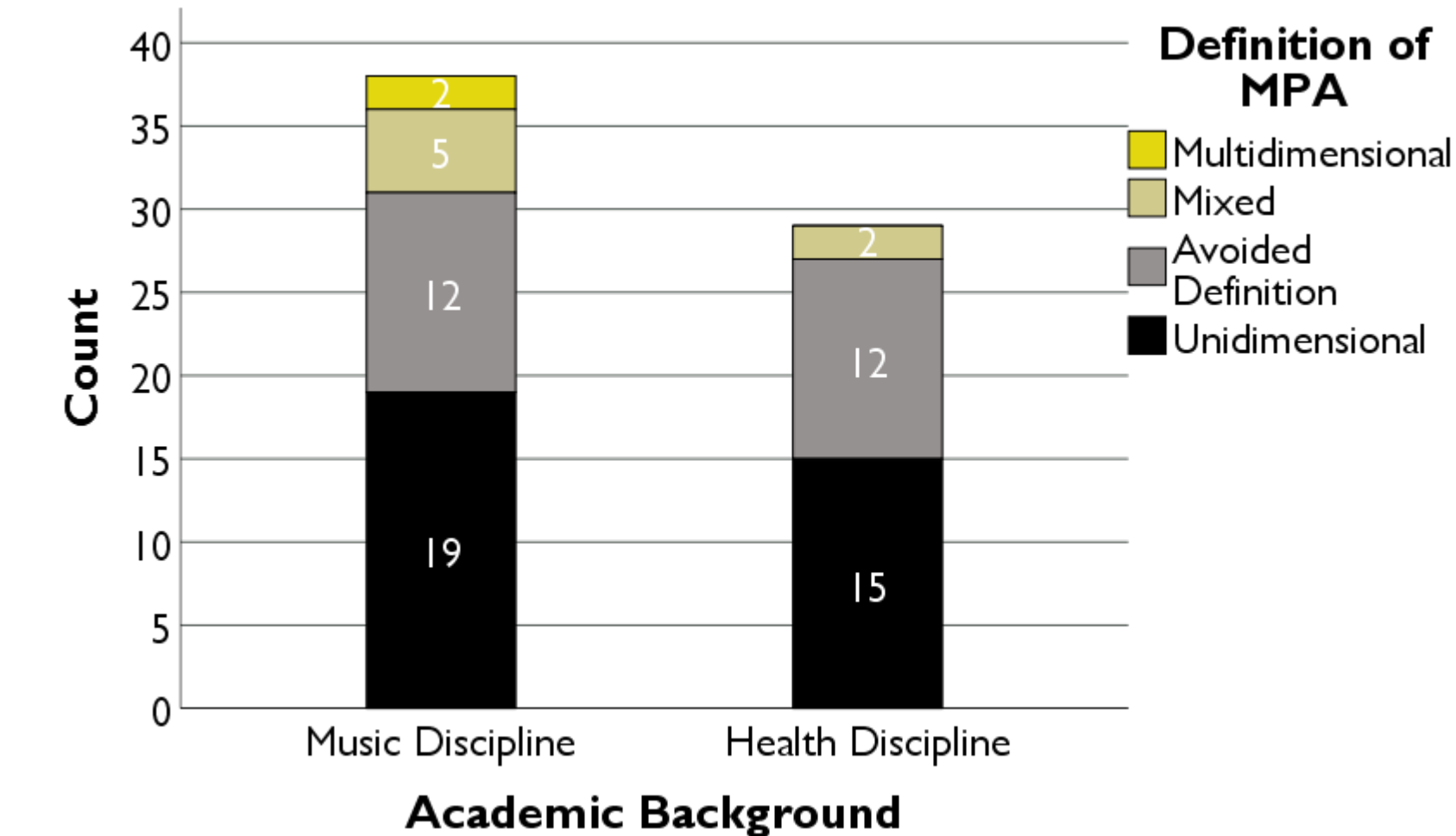


Recognition of facilitative anxiety

Nine theories and two frameworks were identified. As highlighted in Figure 2, six studies included theories and frameworks that reference the multidimensionality of anxiety. Among these studies, four theories were applied by authors with academic backgrounds in music. The remaining studies applied unidimensional theories.

Comparison of theoretical orientations across academic backgrounds

Figure 3. Definitions of MPA and Academic Backgrounds



As shown in Figure 3, no significant differences were found when comparing definitions of MPA across music and health disciplines ($\chi^2 = 2.59, p=0.46$). Authors from both music and health backgrounds are inconsistent regarding definitions of MPA. While 2 studies by authors with music backgrounds used multidimensional definitions, no authors with health backgrounds recognized this perspective.

Nabeel Zuhdi

Nabeel began his classical guitar training in 1989 at the National Conservatory of Syria in his hometown of Damascus. In 2003, he won the *Moyen-Guitare l'ère Méditerranéenne* competition from the National Conservatory of Jordan in collaboration with the *Conservatoire National de Région Ville de Boulogne-Billancourt*, France. Nabeel earned a Bachelor's degree in Environmental and Applied Geology in 2005 from the University of Jordan in Amman while performing and teaching classical guitar. In 2017, he earned his Master's Degree (MM) from UNT in classical guitar performance under Professor Thomas Johnson with a related field in performing arts health with Professor Kris Chesky. Nabeel was awarded a Research Fellowship (2017-2019) and is currently pursuing a PhD in Music with Concentration in Performing Arts Health.



Figure 4. Recognition of Facilitative Anxiety across Academic Backgrounds

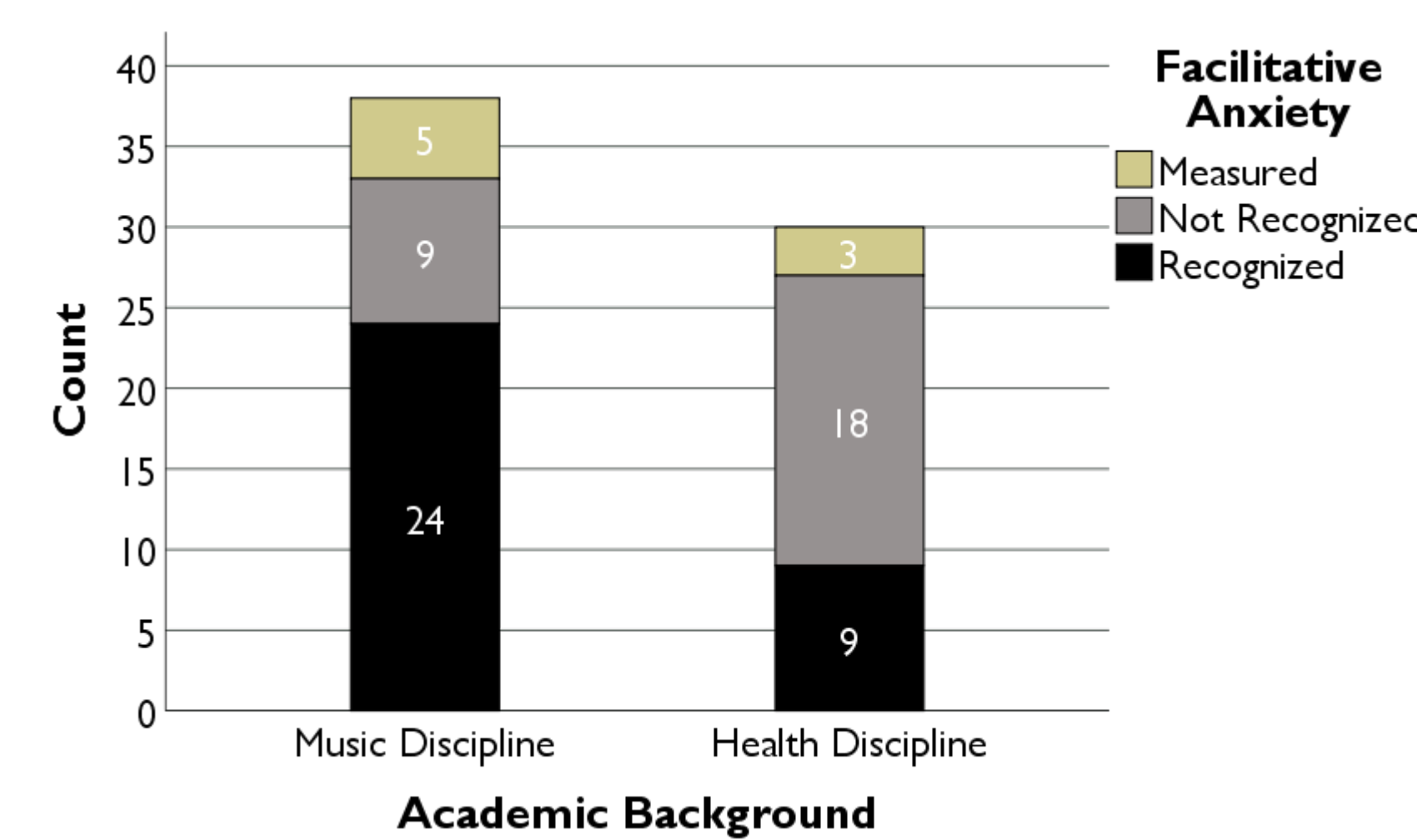
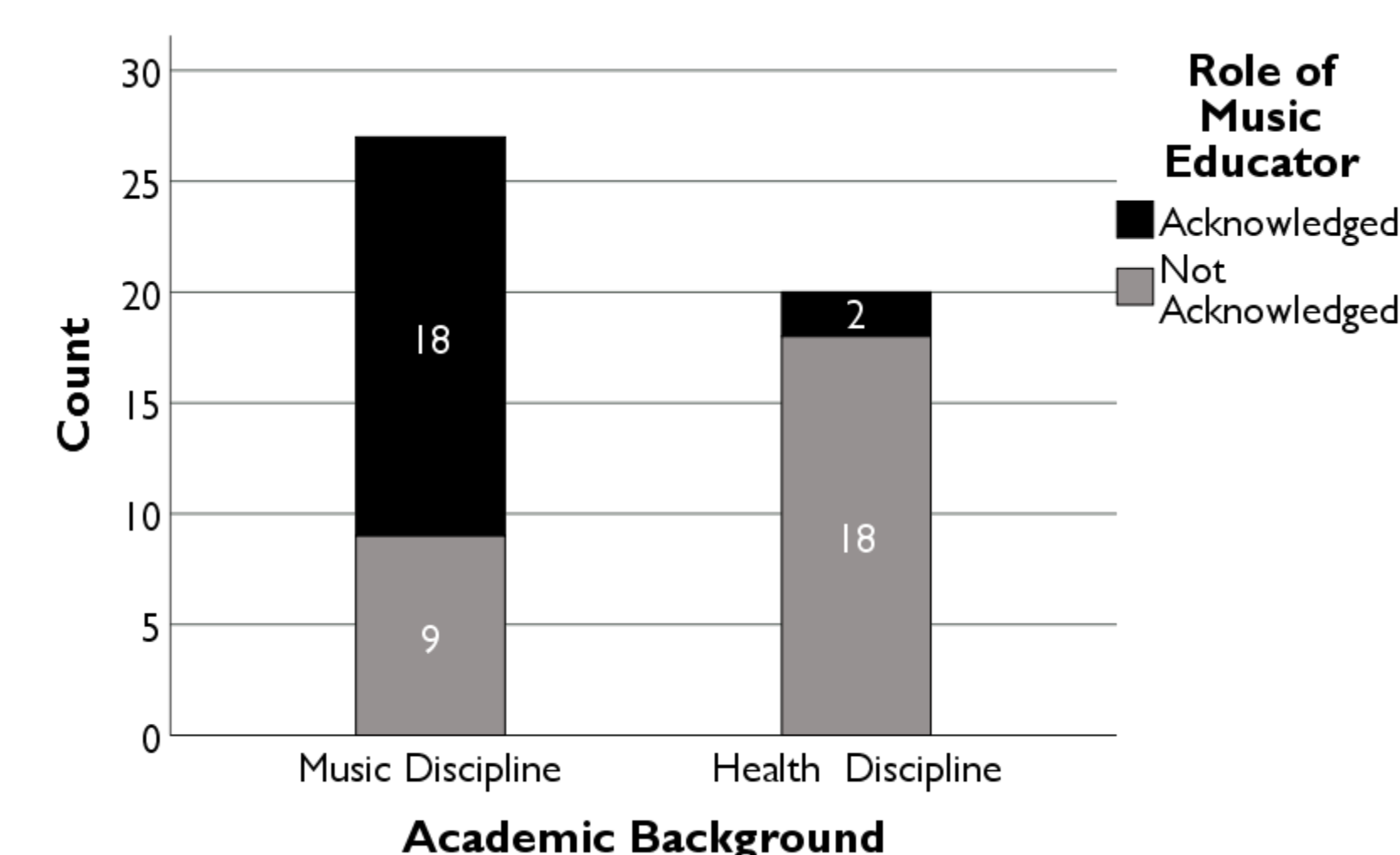


Figure 4 shows that authors with academic backgrounds in music were more likely to recognize the potential of anxiety to facilitate performance ($\chi^2=9.5, p<0.01$). However, the number of studies that measured facilitative anxiety are limited (N=8).

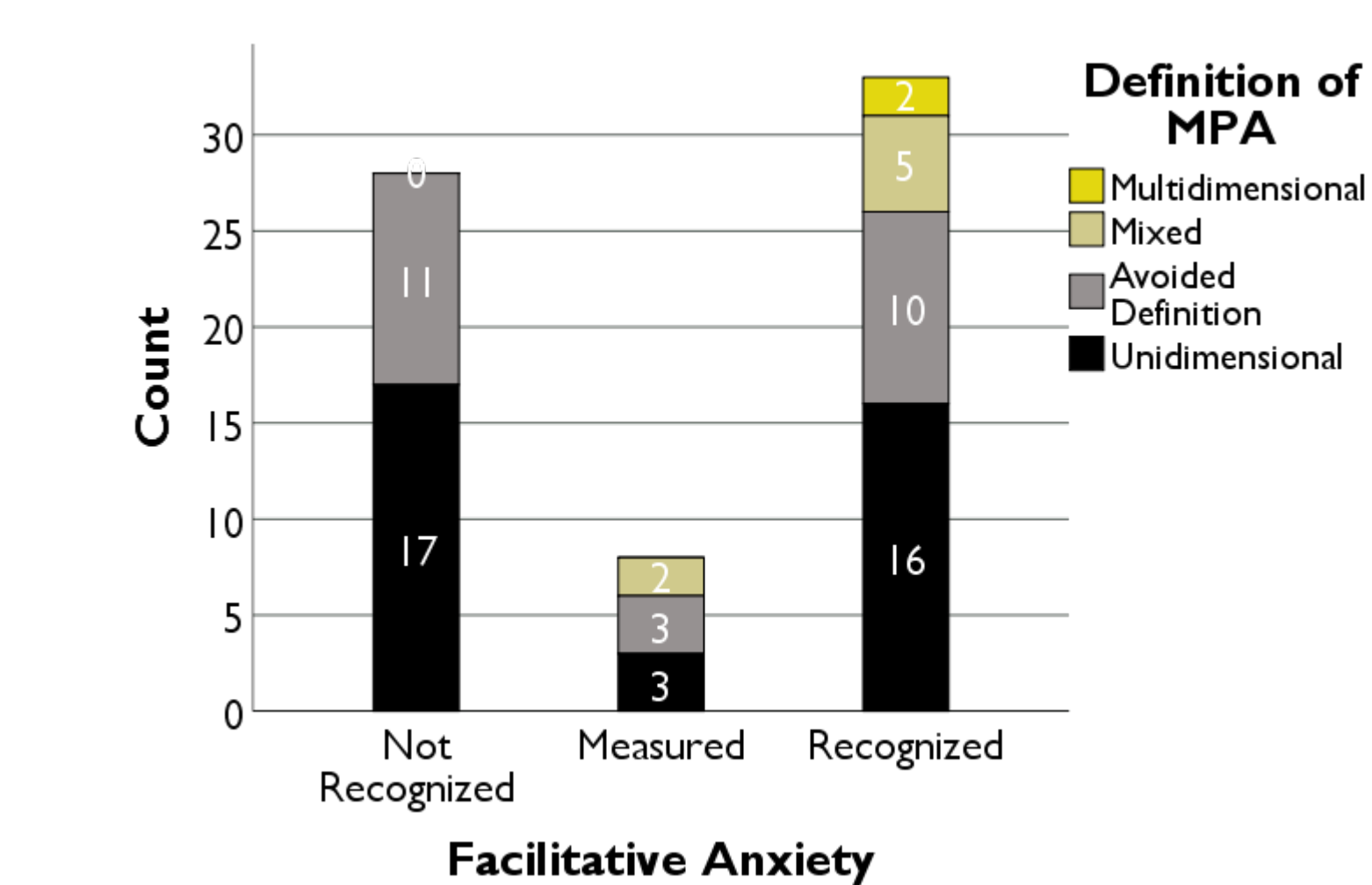
Figure 5. The Relationship between Academic Backgrounds and Acknowledgment of the Role of Music Educator



As shown in Figure 5, studies whose authors have academic backgrounds in music were significantly more likely to acknowledge the role of music teachers in influencing levels of MPA in music students than authors with backgrounds in health disciplines ($\chi^2 = 15.09, p<0.000$).

Comparison of definitions of MPA across recognition of facilitative anxiety

Figure 6. Definitions of MPA and Recognition of Facilitative Anxiety



No significant difference between types of definitions and recognition of facilitative anxiety was found in MPA literature. This result suggests inconsistency of definitions, and confusion in conceptualizing of MPA. For example, Figure 6 shows that some studies did recognize the potential of MPA to be facilitative, but they still defined it as only debilitating (unidimensional). Table 2 shows examples of type of definitions used and statements that recognized facilitative anxiety.

Table 2. Statements used in MPA definition and recognition of Facilitative Anxiety

Year	Author	Type of Definition of MPA	Recognition of Facilitative Anxiety
1985	Henson	"In this study, the terms 'performance anxiety' and 'stage fright' will be used synonymously."	"Not all aspects of anxiety are bad."
1987	Wolfe	"Performance anxiety or 'stage fright' has long been one of the most disabling health problems..."	"Both facilitating (adaptive) and debilitating (maladaptive) trait anxiety were measured"
1987	Stepcoe	"Musical performance anxiety is also a useful model for the study of specific fear..."	"The arousal needed for a good performance is not anxiety, but a state of moderate physical excitement."
1994	Bronson	"Performance anxiety also known as stage fright, is a serious, debilitating problem..."	"Some stress (adaptive anxiety) appears to be necessary to reach peak performances"
1999	Senshythyn	Avoided definitions	"Excitement is merely a form of anxiety that is expressed positively."

Conclusion

This is the first known quantitative review of MPA literature. The analyzed data provided important insights regarding the status of the current MPA literature. The hypothesis that theoretical orientations were associated with academic background of authors was confirmed in this review. Although MPA literature has developed significantly in recent years, the current MPA literature is inconsistent regarding the multidimensionality of MPA since Brodsky's review in 1996.

With growing evidence that supports the multidimensionality of MPA, future studies should include facilitative anxiety when conceptualizing, measuring, adopting theories, or developing measurement scales for MPA. As noted by McGinnis and Milling (2005) and as shown in this review, there is a need for health researchers to collaborate with music researchers in order to reduce the inconsistency of definitions and theoretical orientations.

It is worth mentioning that statements regarding personal perceptions and attitudes, as reflected in Table 3, can influence how researchers approach this challenge.

Table 3. Examples of Attitudes towards Collaboration across Disciplines

Year	Author	Attitudes
1982	Kendrick	"It certainly would be easier to teach music teachers what they need to know about attentional training than to teach psychologists what they would need to know about music!"
2005	McGinnis and Milling	"Finally, psychotherapists who work with clients experiencing musical performance anxiety may find it helpful to have had musical training themselves. Psychotherapists lacking such training may wish to consult with a professional musician (e.g. a music professor or certified music teacher) to better understand the technical challenges involved in musical performance."

Music Discipline
Health Discipline
Academic Background of Author
Journal Articles
Dissertations
Reviews

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