Musical performance anxiety as a form of social anxiety?

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The aim of the current study was to investigate the relationship between social anxiety and musical performance anxiety (MPA). Previous literature has reported mixed results concerning correlations between social anxiety and MPA. To better describe overlapping and unique features in comparison with social anxiety disorder may introduce new options for treatment. The aim of the current study was to explore if performance anxiety only, or also the fear of social interaction, predicts MPA and if there are additional predictors beyond social anxiety. One hundred and forty-two music students and professional musicians participated in the study. In addition to questionnaire measures of MPA and social anxiety, we assessed perfectionism, self-focused attention, and absorption as possible predictors. Social anxiety correlated highly with MPA. In a regression analysis only the subscale performance anxiety, not fear of social interaction, predicted MPA. Moreover, social anxiety only partially predicted MPA; perfectionism and public self-focus significantly increased the explained variance. We conclude that social anxiety and MPA are strongly related but are also unique in many ways.

Keywords: musical performance anxiety; social anxiety; multiple regression analysis; perfectionism; self-focused attention

Between 16% and 40% of all musicians suffer from MPA (Fehm and Hille 2005, Wesner and Roland 1990). MPA affects not only the well-being of a musician, but can also damage a musician's career. Although there is a great demand for treatment, MPA is not well understood. Some authors describe MPA as a type of social phobia, characterized by the fear of negative evaluation (e. g. Wilson and Roland 2002, Barlow 2002). Others found only

low correlations between social phobia and MPA (e.g. Osborne and Franklin 2002, Steptoe and Fidler 1987), or correlations were limited to certain performance conditions (Cox and Kenardy 1993, Fogel 1982).

Likewise, it is not known if the degree to which other personality traits are relevant in MPA or social anxiety differ. Personality traits, which are linked to both problems, are catastrophizing cognitions (Steptoe and Fidler 1987), perfectionism (Mor *et al.* 1995; Kenny *et al.* 2004), and public self-focus (Schröder and Liebelt 1999). However, it has not been examined if these traits are redundant in the overlap of MPA and social anxiety or if they provide additional information.

The aim of the current study was therefore to better describe overlapping and unique features in comparison with social anxiety disorder. Because social anxiety and its therapy are better explored than MPA, this knowledge may help to identify new options for the treatment of MPA.

METHOD

Participants

For this study, 142 instrumentalists of classical music (83 female) participated. Of those, 72 were music students, and 70 were professionals. Ages ranged from 17 to 65 years; the mean age of the sample was 30 years (SD=9.7).

Materials

The following questionnaires were used:

- Performance Anxiety Questionnaire (German version, BAF: Fehm and Hille 2002)
- Liebowitz Social Anxiety Scale in the self-assessment version (German version: Stangier and Heidenreich 2004)
- Frost Multidimensional Perfectionism Scale (German version: Altstötter-Gleich and Bergemann 2006)
- Hewitt and Flett Multidimensional Perfectionism Scale, Subscale Socially Prescribed Perfectionism (German Version: Stöber 2002)
- Self-focused Attention (SAM; Filipp and Freudenberg 1989)
- Tellegen Absorption Scale (German version: Ritz and Dahme 1995)
- Questions on socio-demographic background and musical training

Procedure

Musicians in music colleges and orchestras were invited to participate in the study. The rate of questionnaires sent back by mail was 91%. Differences between students and professionals were analyzed with univariate analyses of variance (ANOVAs). Significant effects were followed up by t-tests using the Bonferroni correction. A significance level of alpha (α)=0.05 was used for all analyses. To examine the unique contribution of traits, we used stepwise multiple regression analyses.

RESULTS

The mean musical performance anxiety (MPA) score (BAF) of all participants was in the medium range (M=51, SD=12.8; possible range 20-100, normative mean of music students M=55, SD=12.3; Fehm *et al.* 2005). Music students had higher MPA than professionals, $F(2,139)=5.15$, $p<0.01$. Also, in line with previous studies, women indicated higher MPA than men, $t(140)=-3.35$; $p<0.001$.

All subscales of social anxiety (LSAS) highly correlated with MPA (r=0.50, $p<0.001$), but in a stepwise regression analysis, only the subscale performance anxiety remained significant (see Table 1). Neither avoidance behavior nor fear and avoidance of social interaction situations made any additional contribution to the prediction. Social anxiety predicted 24% of MPA (R^2=0.24). Moreover, social anxiety only partially predicted MPA; other personality traits and characteristics significantly increased the explained variance by about 15%. Beyond the LSAS subscale performance anxiety, gender, public self-focus, the belief that the audience likes the performance, the professional status, and perfectionism were additional predictors. Absorption, private self-focus, fear of social interaction, as well as socially predicted perfectionism did not predict MPA.

DISCUSSION

The central finding of this study was that social anxiety and MPA are strongly related but also unique in several ways. Performance anxiety, not fear of social interaction, predicts MPA in a multiple regression. Moreover, social anxiety does not predict MPA completely. In addition to social anxiety, perfectionism, public self-focus, gender, the professional status, and the belief that the audience likes the performance seem to be essential for the extent of MPA. Whereas self-focused attention (Clark and Wells 1995) and perfectionism (Juster *et al.* 1995) are known to be related to social anxiety as

Table 1. Stepwise regression analysis with MPA as dependent variable, R^2=0.39.

Questionnaire	Subscale	β
Liebowitz Social Anxiety Scale (LSAS)	Performance anxiety	0.33***
Socio-demographic data	Gender	0.18*
	Profession	-0.18*
	Belief that audience likes the performance	-0.21***
Self-focused Attention (SAM)	Public self-focus	0.17*
Multidim. Perfectionism Scale (MPS-F)	Concern over mistakes	0.18*

* $p<0.05$, ** $p<0.01$, *** $p<0.001$

well, there is usually no relationship between gender or professional status and social anxiety.

Different from our expectation, absorption and MPA did not correlate significantly. We assumed that absorption (see Tellegen and Atkinson 1974) is related to the positive experience while performing, leading to a greater attention and involvement in the musical experience and the incidence of flow experiences, which are frequently expected to reduce MPA (Wilson and Roland 2002). However, a study of Lilienfeld (1997) showed that absorption can also be related to anxiety sensitivity. Perhaps absorption is related to emotional involvement concerning both positive and negative emotions and does not therefore reduce MPA.

The finding that MPA is higher among students than among professionals is in line with previous work (Steptoe and Fidler 1987). As there is no effect of age among the group of students or among the group of professionals in this study (although the latter are equally distributed from 25 to 65 years), we suggest that the professional status is indeed the critical factor for MPA, not age or performance experience.

In sum, the results suggest that MPA is a special subtype of social anxiety. It seems to be justifiable to transfer knowledge related to social anxiety to develop better treatments for MPA. However, those approaches will have to be adapted to the special features of MPA, especially perfectionism and public self-focus.

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