Causes and symptoms of anxiety in music performance of flute students

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Abstract
This article presents part of a master’s degree research, which focused on investigating causes and symptoms of anxiety of flute students from three music colleges in Brazil in the performance of an unaccompanied flute work in recital of evaluative character. The procedures of collection and analyses of data occurred as in the study by Siw Nielsen (1999), that is, through the behavioral observation of the participants in the recital, and verbal reports by semi-structured interview. In total, fourteen causes of anxiety were reported by the flute students, the most of them were originated in the task and the situation. Nineteen symptoms of anxiety were experienced by the flute students in this study. However, physiological and cognitive symptoms were the most reported by them.

Resumen
En este artículo se presenta parte de una investigación de maestría que tuvo como objetivo investigar las causas y síntomas de la ansiedad de los alumnos de flauta de tres instituciones de educación superior durante una presentación de carácter evaluativo de una obra para flauta solista. Los procedimientos para la recolección y análisis de datos se realizaron siguiendo el estudio de Siw Nielsen (1999), es decir, a través de la observación del comportamiento de los participantes en el recital y los informes verbales a través de entrevistas semi-estructuradas. En total, se reportaron catorce causas de la ansiedad en los estudiantes de flauta, la mayoría de los cuales se originaron en la tarea y en la situación. Diecinueve síntomas de ansiedad fueron experimentados por los estudiantes de flauta en este estudio. Sin embargo, los síntomas fisiológicos y cognitivos fueron los más señalados por ellos.

Resumo
Este artigo apresenta parte da pesquisa de mestrado que teve como objetivo investigar causas e sintomas de ansiedade de estudantes de flauta de três IES na apresentação de uma obra para flauta solo em recital de caráter avaliativo. Os procedimentos de coleta e análise de dados ocorreu em semelhança ao estudo de Siw Nielsen (1999), isto é, por meio da observação comportamental dos participantes no recital e dos relatos verbais pela entrevista semiestruturada. No total, quatorze causas de ansiedade foram relatadas pelos estudantes de flauta, a maioria dos quais foram originados na tarefa e na situação. Dezenove sintomas de ansiedade foram experimentados pelos estudantes de flauta neste estudo. No entanto, sintomas fisiológicos e cognitivos foram os mais relatados por eles.
**Introduction**

According to Cook (1959), music is often regarded as a ‘language of emotions’ (Cook, 1959 in Juslin & Sloboda, 2010). At the same time, for Juslin and Sloboda (2010), music expresses emotions that listeners perceive, recognize, or are ‘moved’ by. Emotion is also a central to the process of creating music, whether is composing or performing music. Numerous of musicians have attested to the crucial role of emotions in writing, learning, and interpreting music (Juslin & Sloboda, 2010). For this reason, a professional, student or amateur musician must learn how to deal with a gamut of emotions, mainly when the activity is directly related to performance. Among emotions, there are those ones in which the performer has the intention of communicating with his/her audience through the music, and some emotions that can influence the musician in his/her music-making. In the second case, during the process of practicing of the repertoire for a concert, musicians can be confronted not only with the technical-interpretation difficulties that need to be learned and overcome, but also with social cultural contexts and deadlines that they are always submitted to, among other elements. Furthermore, there are expectations and desires generated by the performer and by the audience, what can drive the musician to state anxiety. Thus, Salmon (1990) states that the occupational stress inherent in the music profession provides a sensitizing backdrop against which individuals experience the physiological, behavioral and cognitive symptoms that typically accompany anxiety (Salmon, 1990 in Kenny et al., 2003, p. 579).

In musical performance, anxiety is an emotion that can restrict or impair the performance through its different causes, and symptoms mainly in individuals that do not use to experience this process as in the case of music students. From this evidence, questions arose, such as: What are the causes of anxiety in flute students to perform an unaccompanied flute work in a recital of evaluate character? What are symptoms or kind of symptoms of anxiety experienced by the flute to perform an unaccompanied flute work in a recital of evaluate character? Are there similarities between causes and symptoms of anxiety in flute students and other woodwind musicians, for example, in clarinet players (Silva & Santiago, 2011)?

**Literature Review**

**Causes of music performance anxiety**

According to Valentine (2002, p. 172), three factors contribute to anxiety in musical performance: the person, the task and the situation.

The person refers to all aspects of the personality of each individual who may exercise any influence on the behavior, i.e., introversion, extroversion, independence, dependency, trait of perfectionism, sensitivity, anxiety, among others. It is individual and expresses habitual predisposition of the person to react to the environment in which it operates.

The level of anxiety on performance is proportional to the task, i.e., the more difficult task, the greater anxiety (Sinico et al., 2012, p. 939). The musician may be confronted with a “complex” task for his/her current technical-interpretive level. Thereby, psychological and cognitive symptoms of anxiety can contribute to become the task more difficult to be performed. Therefore, some musical factors that can influence positive or negatively the preparation and the performance of the task, i.e., repertoire, sight-reading, individual practice and rehearsal, musical expression, and memorization.

Even as the person and the task, the anxiety may be caused by the situation, and it is individual and can vary from person to person. Among the causes that generate anxiety in the performance, there are certain situations that are relatively stressful for performers, regardless of their individual susceptibilities (Wilson, 1999, p. 231).

These situations were also noted and compared by Hamann (1982) antagonistically: the solo performance versus ensemble, the recital versus the individual practice, the competition versus the presentation for pleasure, the performance of difficult or ill-prepared works versus those that are easy, family or well-learned (Hamann, 1982 in Wilson 1999, p. 232). So, we can infer that the first situation of each group can generate more anxiety than the second situation, letting the performer more exposed. Finally, individual or collective action of the mentioned factors can trigger anxiety musician in the preparation and during the musical presentation.
**Symptoms of anxiety**

According to Valentine (2002) symptoms can be classified into three types: physiological, behavioral and mental (Valentine, 2002, p. 168). For Lehmann et al. (2007, p. 149), physiological symptoms, and cognitive behavior are interrelated and occur simultaneously during the preparation and performance of a musical work.

For Marshall (2008), physical/physiological symptoms of anxiety experienced during the performance are similar to those experienced in any stressful situation (Marshall, 2008, p. 9). Among the physiological symptoms in response to the excessive excitation of automatic nervous system are nervousness, headache, increase of heart rate, palpitations, shortness of breath, hyperventilation, dry mouth, sweating, nausea, diarrhea and dizziness. Valentine (2002) comments that the behavioral symptoms may take the form of signs of anxiety such as shaking, trembling, stiffness, dead-pan expression, or impairment of the performance itself (Valentine, 2002, pp. 168-169). Steptoe (2001) adds other signs such as the difficulty in maintaining posture, natural movement and technical failures (Steptoe, 2001, p. 295). These symptoms can exude clear signals to the audience that the performer is nervous or actually impair the performance itself (Williamon, 2004, p. 11).

Mental symptoms can be classified into cognitive and emotional. Cognitive symptoms consist of loss of concentration, distraction, memory failure, inadequate cognition, incorrect interpretation of the score, among others (Steptoe, 2001, p. 295). Negative thoughts, according to Williamon (2004), are often associated with overidentification of self-esteem and self-worth with performance success (Williamon, 2004, p. 11). Emotional symptoms arise from feelings of anxiety, tension, apprehension, dread or panic, which form the core experience of anxiety for many musicians (Steptoe, 2001, p. 295).

**Method**

This study has a qualitative approach, primarily by enhancing the description and interpretation of data, and the subjectivity of the individuals, that is, both the researcher and the participant of the investigation. In order to facilitate the categorization the sample, demographic data of the participants were treated by descriptive statistic, aiming the description of investigated population. A convenience sampling of non-probabilistic nature was used for this study, which participants were selected based on their presumed similarity with the useful population and in its availability (Rea & Parker, 2002, p. 150). Some parameters were outlined for this research as participants, task and situation of music performance, and the procedures of collection and analyses data. These parameters will be described below.

**Participants**

All participants were flute players enrolled in Bachelor of Music – Flute Performance from three music colleges in Brazil. In total, 12 flute students participated integrally in the study, 5 from State University of Minas Gerais, 5 from Faculdade Cantareira, and 2 from Federal University of Pelotas. Moreover, three flute students had only participated in the first stage of collection data, and then they abandoned the research. From twelve participants, 7 were males and 5 were females. However, it is important to note that results of this research will not be treated on the basis of gender. Other demographic data that contributed to determine the profile of the participants were average of age, years of flute practice, and the semester they were attending at that moment. The average age of the participants was approximately 23 years old, and the youngest student reported to be 18; and the oldest, 34. The average years of flute practice was about 8 years among participants. These same flute students were attending different semesters in the music colleges which ranging between the first and seventh semester.

**Task and situation of music performance**

In order to investigate only, and exclusively the flute students in their musical performance, the researcher asked the professors of flute from the music colleges to guide their respective students in the choice of a work from unaccompanied flute repertoire. It should be realized according to the evaluation of professor on the technical-interpretive difficulties of each flute students. After the choice, each participant should prepare the unaccompanied flute work, that is, solve the technical-interpretative difficulties during the semester with your professor of flute.
Meanwhile, three participants chose an unaccompanied flute work that had been studied by them before, and its study was retaken in the semester in which the collection data occurred.

The construction of music performance situation for this research was supported on some situations pointed by Hamman (1982) that according to the author, it can allow the susceptibility of the performer to the action of music performance anxiety. At the same time, we also opted for a situation that is very familiar to music students, thus the recital was chosen as more adequate situation for the research. However, other characteristics were added to it as evaluative, and the presence of an audience that comprised the researcher, professor of flute, and other flute students.

Procedures of collection and analyses data

The procedures of collection and analyses of data occurred as in the study by Siw Nielsen (1999), that is, through the behavioral observation of the participants, and verbal reports. Thus, the first stage refers to the recital, and the second one to the semi-structured interview. The recital was realized according to the characteristics mentioned above, that is, the performance of an unaccompanied flute work that was chosen and studied by the participant in a recital of evaluative character. In the second stage, the semi-structured interview was used for the collection data of verbal reports of the participants after the recital. An itinerary was developed for the semi-structured interview, and it was thought as a support tool for the researcher. Its aim was to solicit the comment of the participants about some topics found in the literature review. The participants were interviewed individually in a room offered by the professors of flute. But the sequence of the interviews was not the same in the recital. At the end of the semi-structured interview, the researcher solicited the participants to the reading and signing of the Statement of Free and Informed Consent. Both stages were recorded in audio and video. First, because it allowed a posterior observation of the behavior of the participants by the researcher in order to dialogue to the data obtained in the second stage. Secondly, it refers to the existence of a visual and corporal language during the interview beyond the emotions and subjecitivities between the researcher and the interviewee. The collection data were realized in three dates and different locations. The dates were defined with the professors of flute according to the calendar of the music colleges.

The analyses data occurred in three stages. First the observational analyses of the behavior of the participants in the recital. Secondly, the analyses of verbal reports from the semi-structured interview. Finally, the crossing of data.

The observational analyses were realized in two different moments. First, when the researcher was present in the recital to watch and record it in audio and video, and secondly when the researcher watched the recordings, allowing at least two observational analyses of behavior of the participants. The first analyses contributed to drive some questions during the semi-structured interview from notes of the behavior of the participants in the recital. Therefore, the researcher was responsible for observing and reporting the behavior of the flute players, and the sounding results through the perception and his evaluation. From that, the researcher was able to make hypotheses through analyses observational for symptoms that each participant had experienced in their musical performance, which would be confirmed by the analyses of verbal reports.

In the analyses of semi-structured interview, the researcher sought to identify causes, and symptoms of anxiety reported by the participants. After that, the researcher sought to identify the strategies used by flute students to cope with music performance anxiety. The structure of the analyses of verbal reports was composed by the presentation of analyses data followed by excerpts of semi-structured interview of the participants.

The crossing of the data consisted of the comparison of data obtained in the observational analyses of the behavior of the participants in the recital and the analyses of the verbal reports of the semi-structured interview. Thus, the hypotheses made by the researcher in the observational analyses were confirmed or not by the reports of the flute students.
Results

In total, fourteen causes of anxiety in musical performance were reported by the flute students in this study. Two causes were related to the individual aspects of personality, five causes were attributed to the task, and seven to the factors that were related to the situation. The unaccompanied flute work was reported by eleven among twelve flute students, followed by the public performance, and evaluation by nine participants. Non-enough time for solving the technical-interpretive problems, prior knowledge of the date for the recital, masterclasse, and the quality of the audience were reported as one of the causes of anxiety by five flute students. Four participants pointed out the Baroque repertoire, and technical-interpretative difficulties as causes of anxiety in their performances. Trait of perfectionism had three reports, and social exposure was reported by two. Non-enough time for practicing of the repertoire as the cause of anxiety of only one flute student.

Nineteen was the number of symptoms of anxiety reported by the flute students. Six of them were physiological, five behavioral, three cognitive, and five emotional. Nervousness was reported by eleven participants, and the lack of concentration was one of the symptoms of anxiety among ten flute students. The negative thoughts were reported by seven participants. Fear (of fail, and to be evaluated by the peers), and the dry mouth were symptoms reported by five, respectively. Shortness of breath, increase of heart rate, and trembling of hands and legs were reported as symptoms of anxiety for four flute students. Sweating and insecurity were one of the symptoms of two participants of this investigation. With a report each, the other symptoms were experienced as: headache, loss of fine motor control of the hands, shaking, self-evaluation during the performance, and underestimation of the error.

Conclusion

The most reported causes were those originated from the task and the situation. The main causes of anxiety were in the situation of the recital of evaluative character, public performance, the quality of the audience composed by the peers, and non-enough time of practicing to solve the technical-interpretive problems before the performance. Parallelly, the cause of anxiety originated from the task that was reported by the most flute students in this study was the unaccompanied flute repertoire. The most of the participants did not have another unaccompanied flute work in their repertoire in that semester, beyond that was performed in the first stage of the collection of data. It is important to highlight the Participants 7 and 12 reported ten and eight causes of anxiety experienced in the recital of evaluative character, respectively, and it may have resulted in the experience in a higher level. Through comparison of this investigation and the study on clarinet players by Silva & Santiago (2011), we find similarities of causes of anxiety in the researches, i.e., technical-interpretive problems, repertoire, public performance, and the quality of the audience.

The physiological and cognitive symptoms, i.e., nervousness and dry mouth, and lack of concentration and negative thoughts were the most reported symptoms of anxiety. Participant 12 reported to have experienced nine symptoms, and the Participant 1 eight symptoms, followed by the Participants 2, 4, and 11 that reported to have experienced six of the different kinds of symptoms of anxiety. As before, some symptoms of anxiety of in clarinetist (Silva & Santiago, 2011) were very similar with flute student’s ones. The higher incidence among them were dry mouth, increase of heart rate, muscle tension, trembling, and shaking. Dry mouth may be a feature symptom of anxiety among woodwind and brasswind players, and singers for the need to have a good salivation to play their instruments, and sing. However, this hypothesis would need to be better investigated in next researches how the physiological symptoms of anxiety may influence their musical performances.

References


Notas

1 Communication is a term used to refer a process a sender conveys an emotion to a receiver who is able to decode the emotion concerned. Note that the term ’communication’ is used regardless of whether the transmitted emotion is ’genuinely felt’ or simply ’portrayed’ by the performer in a symbolic manner. (Juslin & Sloboda, 2010)