

11. STRESZCZENIE W JĘZYKU ANGIELSKIM

Introduction

Playing-related musculoskeletal disorders are one of the most common health problems among musicians. Previous studies show that 38% up to 89% of musicians suffer from such problems, some of them debilitating or preventing from further playing the instrument (Ackermann, Kenny, & Fortune, 2011; Bruno, Lorusso, & L'Abbate, 2008; Kaufman-Cohen & Ratzon, 2011; Kok, Vlieland, Fiocco, & Nelissen, 2013; Leaver, Harris, & Palmer, 2011; Paarup, Baelum, Manniche, Holm, & Wedderkopp, 2012). Some researchers assume that most of classical musicians will suffer from playing-related musculoskeletal problems at least once in their professional careers (Kaufman-Cohen & Ratzon, 2011).

Musculoskeletal problems have multifactorial etiology. Yet, most of previous research has been devoted to biomechanical and environmental aspects. Researchers underline the harmful role of repetitive, asymmetrical movements that burden one side of the body in an unnatural way (Chan, Driscoll, & Ackermann, 2014; Janiszewski i in., 2005). Such overuse leads to compensation movement patterns and body postures that cause microtraumas in muscles and joints engaged while playing the instrument. This, in turn, results in fatigue and increased muscle tension leading to pain and injuries (Janiszewski et al., 2005). Playing the instrument also requires high arms abduction angles that cause excessive and prolonged static muscle contraction. Muscle hypoxia provoked by constantly contracted muscles might lead to functional dysfunctions that frequently prevent musician from further playing (Bittner-Czapińska & Janiszewski, 2004; Janiszewski i in., 2005).

Musculoskeletal disorders, however, might be also caused by individual factors and responses to psychosocial work environment (Bongers, Ijmker, Van Den Heuvel, & Blatter, 2006; Bongers i in., 2002; Koch, Schablon, Latza, & Nienhaus, 2014). Yet, research on psychosocial determinants of playing-related musculoskeletal problems among musicians is still particularly scarce (Rickert, Barrett, & Ackermann, 2013). Recent review performed by Dutch researchers revealed no more than a dozen of previous works devoted to potential psychosocial and work-related risk factors for

pain problems in this particular occupational group (Baadjou, Roussel, Verbunt, Smeets, & de Bie, 2016).

The presented study aimed at determining relationships between psychosocial factors and playing-related musculoskeletal problems. The proposed research model involved a set of variables and relations between them that might potentially lead to such health problems among musicians. The posed research hypothesis and questions included the impact of work-related stress (psychosocial risks in the workplace and musical performance anxiety) and coping strategies on musculoskeletal problems, as well as the role of beliefs about pain (including pain acceptance and reactions to pain). Thus, the analyzed model included both, work-related psychosocial factors (the occurrence of psychosocial risks in the workplace) and those referring to individual perception of work and its demands (the stressfulness of psychosocial risks, musical performance anxiety, beliefs about pain and coping strategies).

Methods and participants

To verify the hypothesis and answer the research questions, I performed a questionnaire study including 151 professional instrumentalists having music education and playing different instruments. The study group involved 83 women and 68 men. Mean age equaled to 37.8 years (\pm 11.2), the studied musicians were aged 20 to 64 years old. On average, the participants had played the instruments for 29.7 years (\pm 11.8). They filled in a set of questionnaires including: sociodemographic survey, Psychosocial Risks Questionnaire for Musicians (Jacukowicz & Wężyk, 2018), Performance Anxiety Inventory for Musicians by Barbeau & Cossette (2011) adapted for the purposes of this study, Brief-COPE adapted by Juczyński and Ogińska-Bulik (2009), 6-item scale to assess beliefs about pain and a survey on the occurrence and intensity of playing-related musculoskeletal disorders.

Results

The results revealed significant positive correlations between the intensity of playing-related musculoskeletal problems and the following psychosocial factors: the number of psychosocial risks occurring in the workplace (total as well as those related specifically to job content, environment, work-home relations and lack of stability); stressfulness of psychosocial risks (total and those

related to job content, environment, interpersonal relationships and lack of stability); intensity of performance anxiety and pain acceptance (cognitive aspect of pain beliefs). Only the occurrence of psychosocial risks in the workplace occurred a significant predictor of the intensity of playing-related musculoskeletal problems.

It was also shown that the musicians suffering from PRMD, i.e. playing-related musculoskeletal disorders of intensity that hinders playing ability, reported significantly more psychosocial risks occurring in their workplace (total as well as those related with job content and the influence of private life on work life); higher stressfulness of the risks (total and those related to job content, environment, interpersonal relationships and lack of stability); stronger performance anxiety and higher acceptance of pain. Regression models revealed that the occurrence of PRMD might be predicted by the number of psychosocial risks occurring in one's workplace and by the extent to which one accepts playing-related pain.

Surprisingly, there were no significant relationships between playing-related musculoskeletal disorders (neither their intensity nor the occurrence of PRMD) and coping strategies and reaction to pain (behavioral aspect of pain beliefs).

Conclusions

Basing on the achieved results, the following conclusions were drawn:

1. The number of the psychosocial risks occurring in one's workplace predicts the intensity of playing-related musculoskeletal disorders.
2. The number of the psychosocial risks occurring in one's workplace and acceptance of pain predict the occurrence of PRMD, i.e. playing-related musculoskeletal disorders debilitating playing ability.
3. Playing-related musculoskeletal problems (their intensity and the occurrence of PRMD) are also associated with stressfulness of psychosocial risks (particularly those related to job content) and performance anxiety.

4. Coping strategies used by the studied musicians did not relate to musculoskeletal problems, neither directly, nor indirectly, mediating the relationships with psychosocial risks or performance anxiety.
5. Tendency to react to pain (taking a break from playing or consulting a specialist) did not relate with either intensity of playing-related musculoskeletal problems or the occurrence of PRMD.

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