

Musicians' Woes: Playing Related
Musculoskeletal Disorders

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Editorial

Music is the most essential ingredient of any entertainment. In order to create successful entertaining event musicians plays an imperative role. Musicians are wizards who spread the fragrance of joy by absorbing woes, in the form of Playing Related Musculoskeletal Disorders (PRMDs), for themselves. Like other occupations, musicians also suffer from work related musculoskeletal disorders which are often disabling [1,2] Since the occupation of instrumental musicians involves playing musical instruments, therefore, work related musculoskeletal disorders are called as Playing Related Musculoskeletal Disorders (PRMDs) [3]. The prevalence of PRMDs in musicians is reported between 32% and 87% [1,4]. Playing musical instrument requires technical precision, repetitive and striking movements and is often performed in constrained posture for longer period of time [1,5]. All types of instrumental musicians (string, woodwind, brass and percussionists) are prone to PRMDs [6].

There are various risk factors contributing to PRMDs among musicians. Broadly they are categorized into occupational and non- occupational. Occupational risk factors include environmental aspects such as temperature, equipment, layout and size of space and equipment [7], and lighting [8]. Physical demands may include instrument type [8,9], non-neutral body postures [10,11], vibration, rapid work pace repetitive motion, forceful exertions [10], playing duration and insufficient recovery time [7,9], mechanical pressure concentrations and cold. Non-occupational risk factors that have been identified in the research include stress [7,12] as well as intrinsic individual factors such as gender [8,9], years of playing experience [9], age [8,13], fitness level/conditioning [12,14], physical health condition [15,16], and physical characteristics [12]. However, inspite of common risk factors among musicians, each community of musicians has its own playing style; therefore, it is difficult to correlate the result obtained from a community of musicians to other community of musicians [17]. As a result, the nature of PRMDs and influence of risk factors may vary with the type of instrument being played.

Large numbers of studies were reported in literature on PRMDs affecting instrumental musicians. But often there are unequal distributions of the instrumental musicians based on the instrument played. Some of the studies like Yeung et al. [18] wherein thirty nine musicians were studied only one percussionist participated in the study, Dawson [19] reviewed the records of one thousand three hundred and fifty four instrumentalists but only two percussionists were included in the study. So any inference drawn from these studies would over estimate the result. There were studies on specific instrumental musicians as well. A study was carried out by Sandell et al. [20] which included two hundred and seventy nine percussionists revealed back as area of discomfort. But percussionist include many instruments each with varying style of playing therefore, inference cannot be generalized. There was paucity of studies reporting specific type of disorders with specific type of percussion instrument except only one Indian study which described about task specific dystonia of Tabla players [21]. Another study was carried by Mishra et al. [11,14] on eighty five table players revealing prevalence of discomforts on specific body parts. The study revealed that the prolonged, unsupported, folded-knee sitting posture may be the cause of discomforts. Mishra et al. [11,14] in another study also reported major risk factor for Tabla playing. Occupational factors and posture related factors were identified for Tabla players. Therefore, it can be comprehended that studies with specific musical instruments on larger sample size revealing discomforts and risk factors need to be explored.

Since each geographical area has different music and associated instrumental musicians which demands different technical precision. Hence, conducting studies on each type of musicians group and pointing out risk factors may help to come up with prevention and intervention strategies. Moreover, majorly of Musicians work as freelancer and being a special occupational group may require different prevention strategies and better design of musical instruments and their accessories. By looking at the prevalence and intensity of discomfort from literature, studies can be undertaken to design both better prevention strategies and intervention strategies.

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References

1. Zaza C. Playing-related musculoskeletal disorders in musicians: a systematic review of incidence and prevalence. *CMAJ*. 1998; 158:1019-1025.
2. da Costa BR, Vieira ER. Risk factors for work-related musculoskeletal disorders: a systematic review of recent longitudinal studies. *Am J Ind Med*. 2010; 53: 285-323.
3. Bragge P, Bialocerkowski A, McMeeken J. A systematic review of prevalence and risk factors associated with playing related musculoskeletal disorders in pianists. *Occup Med (Lond)*. 2006; 56: 28-38.
4. Storm SA. Assessing the instrumentalist interface: modifications, ergonomics and maintenance of play. *Phys Med Rehabil Clin N Am*. 2006; 17: 893-903.
5. Caldron PH, Calabrese LH, Clough JD, Lederman RJ, Williams G, Leatherman J. A survey of musculoskeletal problems encountered in high-level musicians. *MPPA*. 1986; 1: 136-139.
6. Jabusch HC, Altenmuller E. Focal dystonia in musicians: From phenomenology to therapy. *Advances in Cognitive Psychology*. 2006; 2: 207-220.
7. Horvath J. *Playing (less) hurt: An injury prevention guide for musicians*. Kearney, NE: Hal Leonard Corporation. 2009.
8. Ramos AM, Micheo WF. Lifetime Prevalence of Upper-body Musculoskeletal Problems in a Professional-level Symphony Orchestra: Age, Gender, and Instrument-specific Results. *MPPA*. 2007; 22: 97- 104.
9. Wu SJ. Occupational risk factors for musculoskeletal disorders in musicians: a systematic review. *MPPA*. 2007; 22: 43-51.
10. Punnett L, Wegman DH. Work-related musculoskeletal disorders: the epidemiologic evidence and the debate. *J Electromyogr Kinesiol*. 2004; 14: 13-23.
11. Mishra W, De A, Gangopadhyay S, Chandra AM. A Study of Musculoskeletal Discomforts and Associated Risks among Indian Percussion (Tabla) Players. *Ergonomics SA*. 2013; 25: 2-11.
12. Andrews E. *Muscle management for musicians*. Lanham, MD: Scarecrow Press. 2005; ISBN 0810851342.
13. Akeel S, Duger T. Psychosocial risk factors of musicians in Turkey: Use of the Job Content Questionnaire. *MPPA*. 2007; 22: 147.
14. Mishra W, De A, Gangopadhyay S, Chandra AM. Playing Related Musculoskeletal Disorders among Indian Tabla players. *MPPA*. 2013; 28: 107-111.
15. Allread WG. An investigation of the relationship between personality and risk factors for musculoskeletal disorders. (Doctoral dissertation). 2000.
16. Levy JJ, Lounsbury JW, Kent KN. Big five personality traits and marching music injuries. *MPPA*. 2009; 24: 135-140.
17. Llobet JR, Cubells DR, Orfila J. Identification of Risk Factors for Musicians in Catalonia (Spain). *MPPA*. 2000; 15: 167- 174.
18. Yeung E, Chan W, Pan F, Sau P, Tsui M, Yu B, et al. A Survey of Playing-related Musculoskeletal Problems among Professional Orchestral Musicians in Hong Kong. *MPPA*. 1999; 14: 43-47.
19. Dawson WJ. Carpal Tunnel Syndrome in Instrumentalists: A Review of 15 Years' Clinical Experience. *MPPA*. 1999; 14: 25.
20. Sandell C, Frykman M, Chesky K, Wiklund FA. Playing-related Musculoskeletal Disorders and Stress-related Health Problems among Percussionists. *MPPA*. 2009; 24: 175- 180.
21. Ragothaman M, Sarangmath N, Jayaram S, Swaminath PV, Muthane U. Task-specific dystonia in tabla players. *Mov Disord*. 2004; 19: 1254-1256.