

## SSM annual scientific meeting 2017

## Poster (P) presentations

**P01** SYSTEMATIC REVIEW OF REVIEWS ON THE NEGATIVE HEALTH EFFECTS AND PSYCHOSEXUAL BENEFITS OF HIGH-HEELED SHOES

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**Background** Although frequently worn by many women in line with traditional female gender identity, high-heeled shoes (high heels) have been shown to be detrimental to musculoskeletal health and increase the risk of injury. However, no evidence synthesis has considered both the psychosexual benefits and the epidemiological and biomechanical impacts of their wear. We present a systematic review of reviews concerned with the public health challenge of high heels considering all three of these aspects.

**Methods** Seven standard academic health bibliographic databases, including MEDLINE and EMBASE, were searched up to November 2016 using high heel-related keywords such as “high heel” and “stiletto”. Supplementary searches were also conducted in Google Scholar, Directory of Open Access Journals and bibliographies of relevant articles. Due to several review articles on aspects of our research question, we initially included all review articles that provided evidence linking high heels to psychosexual benefits or musculoskeletal health problems (osteoarthritis, hallux valgus, pain or injury) from an epidemiological or biomechanical perspective in participants without prior history of significant musculoskeletal conditions. We then considered additional primary studies addressing areas on which there was no review or an identified lack of evidence. Narrative synthesis was conducted using standard forms. Proportionate second review was conducted.

**Results** A total of 506 unique records were identified, 27 full-text publications were screened and 20 publications (7 reviews and 13 additional primary studies) were included in our narrative synthesis. All available psychosexual studies show that high heels increase women’s attractiveness to men, although they are uncritical regarding heteronormativity. The most up-to-date epidemiological review provides clear evidence of a link to hallux valgus, pain and first-party injury. The body of biomechanical reviews also provides clear evidence of changes indicative of increased risk of these outcomes plus osteoarthritis. With regard to second-party injury, evidence is limited to one descriptive study and eight case reports.

**Conclusion** Our evidence synthesis clearly shows that high heels bring psychosexual benefits to women, but are detrimental to their musculoskeletal health. Considering this dilemma, it is important that women’s freedom of choice is respected in social life, and that policy makers seek to address any remaining issues of explicit or implicit compulsion to wear high heels (e.g. at work). Further research is needed to assess second-party injury and any public safety implications. A limitation of our study is that there was no suitable quality assessment tool for the breadth of designs we included.

**P02** POTENTIAL BENEFIT OF SINGING FOR PEOPLE WITH PARKINSON’S DISEASE: A SYSTEMATIC REVIEW UPDATED TO 2017

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**Background** There is evidence that participation in performing arts brings psychosocial benefits in the general population. In recent years, there has been substantial interest in the potential therapeutic benefits of performing arts for people with chronic neurological conditions. A lack of effective evidence synthesis, however, made it difficult to evaluate the evidence base and future research directions. We conducted the first systematic review of the potential benefit of singing for people with Parkinson’s disease (PD) on speech, communication, cognition, motor function and quality of life outcomes. Here, we present an updated version of this systematic review up to January 2017.

**Methods** Seven standard academic health bibliographic databases, including MEDLINE and EMBASE, were searched up to January 2017 using MeSH terms and keywords corresponding to (Parkinson’s disease AND (Singing OR Music OR Music therapy)). Supplementary searches were also conducted in Google Scholar and bibliographies of relevant articles. We considered full-text original articles assessing the potential benefit of singing for human participants with clinically diagnosed PD on speech impairment, functional communication, cognitive status, motor function or quality of life using any appropriate quantitative design. Narrative synthesis was conducted using standard forms. Proportionate second review was conducted. Study quality was assessed using the Threats to Validity tool.

**Results** A total of 490 unique records were identified, 30 full-text publications were screened and eight studies included in the review. All eight studies assessed the impact of singing on speech, of which six found evidence of benefit. Two studies assessed quality of life, one finding evidence of benefit. One study assessed functional communication and found no evidence of benefit. No studies assessed cognitive or motor function. One study was assessed at low risk of bias, one at medium risk of bias and six at high risk of bias.

**Conclusion** Included studies provide evidence that singing benefits the speech of people with PD. However, evidence is limited with regard to wider benefits, especially those of a psychosocial nature such as functional communication and quality of life, which are areas of high importance to people with PD. A key limitation of our review is that most studies were at high risk of bias. Groups such as Parkinson’s UK run choirs for people with PD – this seems a good idea and has some evidence base, but further more rigorous studies are required to provide a stronger evidence base to support greater healthcare provider-community organisation partnerships.