

Musculoskeletal (MSK) conditions:

A literature review of the barriers and facilitators and effectiveness of interventions/education programmes
BAME groups in the UK

Scoping Literature Review

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1.0 Background

The Institute for Health Research, University of Bedfordshire was commissioned by the Race Equality Foundation to carry out a literature review to synthesise the literature that examines the prevalence of musculoskeletal (MSK) conditions, barriers and enablers and effectiveness of interventions/education programmes for improving the experience of healthy ageing for Black, Asian and Minority Ethnic (BAME) groups in the UK. For the purposes of this literature review the NICE guidance (2020) is used to define MSK conditions and includes arthritis, bone and joint conditions, congenital conditions, maxillofacial conditions, soft tissue conditions, and spinal and back conditions. This report presents the findings of the literature review. Section 2.0 below presents the literature review approach, section 3.0 presents the main themes that emerged from the literature and section 4.0 concludes the report with a summary of key findings and implications of the review.

2.0 Literature review approach and search strategy

2.1 Literature review approach

A narrative review approach (Bart et al., 2006) was taken to conduct this literature review as it was the most appropriate method for capturing the aim: to synthesise the literature that examines the prevalence of musculoskeletal (MSK) conditions, barriers and enablers and effectiveness of interventions/education programmes for improving the experience of healthy ageing for Black, Asian and Minority Ethnic (BAME) groups in the UK. Once a research question was identified systematic searches were carried out using appropriate search terms and inclusion criteria and studies were selected to include in the review. Critically appraising the quality of the selected evidence was beyond the scope of this literature review and what is presented is a broad perspective on the selected topic. From the literature review it is apparent that there was a dearth of evidence in this area and the final output/selected studies was consequently small.

2.2 Search Strategy

The search was conducted between September 2019 and January 2020 across five bibliographic databases: CINAHL, Medline, AMED, Global Health and British Nursing Database. The reference lists of papers selected as part of the main search and websites of interest were also hand searched for published reports on interventions/education programmes for improving the experience of healthy ageing for BAME groups in the UK. (Horsley, Dingwall and Sampson, 2011). These websites included The National Institute for Health and Care Excellence <https://pathways.nice.org.uk/pathways/musculoskeletal-conditions>

The databases mentioned above were searched for a combination of the following words and Boolean operators: Musculoskeletal AND (Ethnic groups OR Minority groups OR black OR Asian), (Arthritis OR Carpel tunnel syndrome OR Hip OR Knee OR Neck pain OR Low back pain OR Osteoporosis OR Sickle Cell OR Lupus) AND (Ethnic groups OR Minority groups OR black OR Asian). This search was supplemented by checking the reference lists of all literature which passed the screening stages. Using this criterion, titles, abstracts and where appropriate full-text screening was conducted. The choice of databases and search terms was made in consultation with an experienced subject librarian (DA).

2.0 Literature review approach and search strategy

Figure 1: Inclusion and Exclusion Criteria

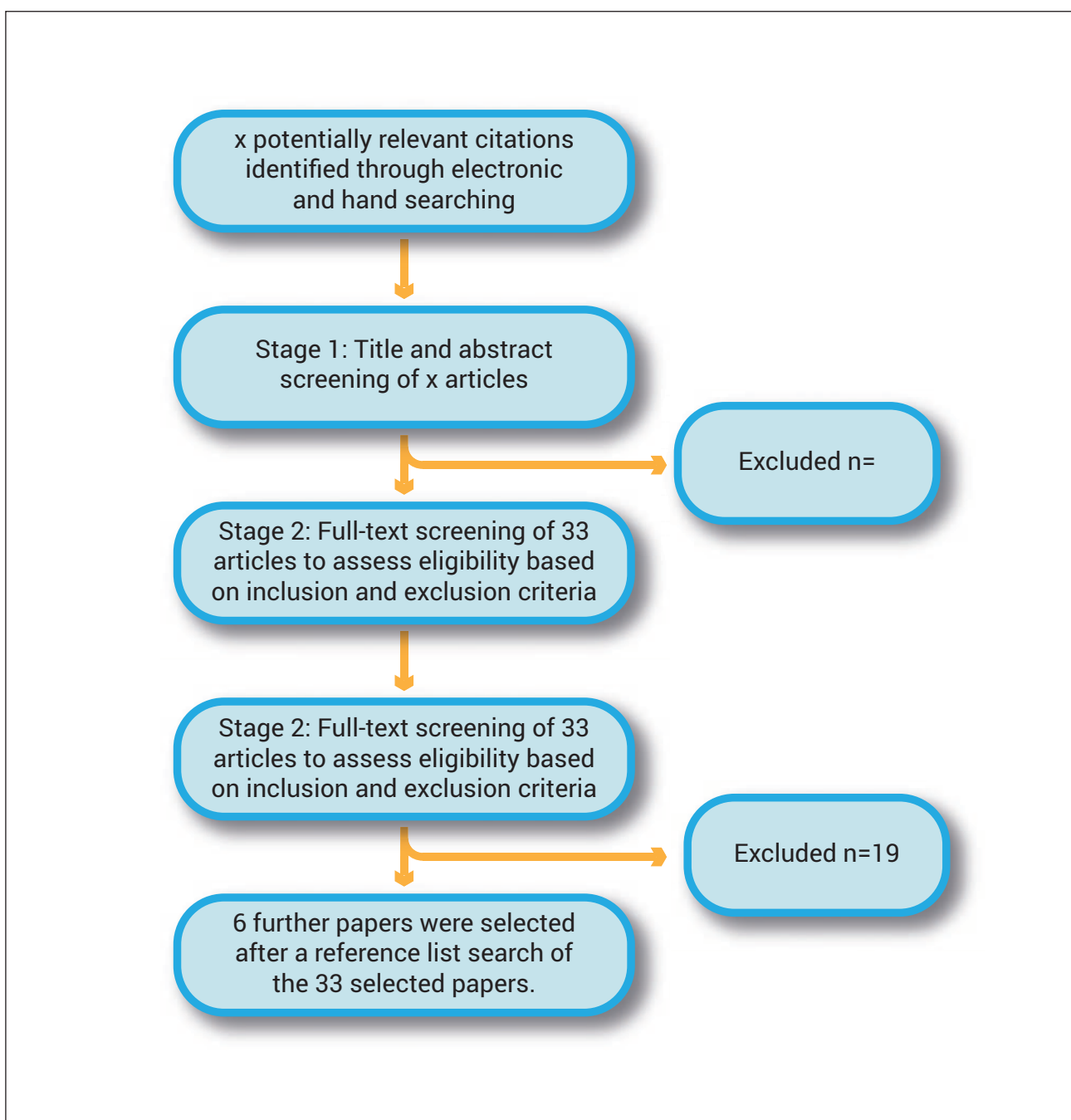
Inclusion criteria	Exclusion criteria
<p>Primary and secondary empirical studies.</p> <p>Quantitative, qualitative and mixed methods.</p> <p>Systematic reviews and conceptual/theoretical papers.</p>	<p>Papers reporting clinical trials.</p>
<p>Peer reviewed journal articles, books chapters, or reports.</p>	<p>Non peer reviewed journals. Newspaper/media articles. Literature not published in peer-reviewed journal articles, reports or book chapters, grey literature, secondary literature.</p>
<p>Published in English Language.</p>	<p>Published in all other languages.</p>
<p>Published between January 1990 and January 2020.</p>	<p>Published before January 1990.</p>
<p>Related to prevalence of musculoskeletal conditions.</p>	<p>Related to clinical trials.</p>
<p>Discussing barriers and enablers.</p>	<p>Not related to barriers and enablers.</p>
<p>Reporting interventions/education programmes for improving the experience of healthy ageing for BAME groups in the UK.</p>	<p>Not reporting interventions/education programmes for improving the experience of healthy ageing for BAME groups in the UK.</p>

2.0 Literature review approach and search strategy

Screening

Figure 2 below shows the Prisma flow diagram of the study showing the selected articles are presented below. The initial searches generated x papers. x duplicated papers were removed and the titles and abstracts of the remaining 33 papers were read by NA and DA. IQ provided a second opinion. 6 further papers were selected after a reference list search of the 33 selected papers. The main themes related to the aim of the literature review are presented in section 3.0 below.

Figure 2: Prisma Flow Diagram



3.0 Main themes emerging from the literature review

3.1 Prevalence of musculoskeletal (MSK) conditions

Our literature search generated evidence relating primarily to the prevalence of MSK among the elderly in developed countries, Systemic Lupus Erythematosus and sickle cell disease, despite including the conditions listed in the NICE (2019) definitions of MSK (see section x). The conditions displayed a clear ethnic variation in incidence and prevalence.

Fejer and Ruhe, (2012) in their systematic review of the prevalence of MSK in developed countries concluded that MSK conditions are prevalent within the elderly population, and with older people living longer the burden of MSK conditions is also increasing. The papers reporting on the prevalence of Systemic Lupus Erythematosus highlight that it is also becoming an increasingly common diagnosis worldwide (Hughes, 2015). There are ethnic, gender and age variations in the incidence and prevalence of Systemic Lupus Erythematosus. Black ethnic groups have the highest incidence and prevalence of Systemic Lupus Erythematosus followed by South Asians, East Asians, and other non-White groups when compared to the White ethnic group. The White ethnic groups have the lowest incidence and prevalence of Systemic Lupus Erythematosus (Rees, et al., 2017, Lewis and Jawed, 2017). There is a 9:1 female-male ratio with women more likely to be affected at every age but peaking in middle age and later for men (Rees, et al., 2017).

UK focussed studies of MSK report higher prevalence of MSK among ethnic minorities than among white people (Allison et al., 2002). Allison et al., (2002) in their study conducted in Manchester found that MSK pain is more widespread among ethnic minorities and concluded that this may reflect social, cultural and psychological differences. In relation to Systemic Lupus Erythematosus Molokhia, et al., (2001) have reviewed differences in prevalence between non-White ethnic migrants. Results from Molokhia, et al., study of patients living in the boroughs of Lambeth, Southwark, and Lewisham in South London showed that the prevalence of Systemic Lupus Erythematosus was higher in Black Africans (people from West Africa mainly Nigeria and Ghana) when compared to Black Caribbean's (people of African and Caribbean heritage) to the UK when compared to Europeans but lower than the Black Caribbean ethnic group.

In the UK the highest prevalence of sickle cell disease is among people from Africa and the Caribbean, with Nigerians being the largest population with sickle cell disease (Arije-Bosun and Hayes, 2017). A study by Ford (2017) highlights that pre-menopausal South Asian women could be at risk of developing osteoporosis (OP) in later life compared to Caucasian women because of poor bone health i.e. the breaking down of bones at a quicker rate than they are being reformed. Symmons et al., (2002) reported a fall in rheumatoid arthritis (RA) in women but not men since the 1950s.

Differences in the prevalence and incidence of Systemic Lupus Erythematosus and sickle cell disease conditions in the literature are explained in terms of race and ethnicity, genetic risk and socio-economic factors (education, employment, income) and access to services (barriers and enablers). Johnson et al., (1996) based on a survey conducted in Birmingham concluded that a substantial number of undiagnosed cases of Systemic Lupus Erythematosus exist and further work needs to be done on the prevalence and benefits of early diagnosis.

3.0 Main themes emerging from the literature review

3.2 Barriers and facilitators

Barriers

Poor access to healthcare is linked to worse outcomes and mortality. There is a dearth of evidence explaining the barriers and facilitators to accessing MSK services and experiences through the MSK conditions pathway (NICE, 2019) for BAME groups in the UK. Based on the available evidence, differential access to MSK services can be explained in terms of geographical variations, for example limited services in Wales means that patients with sickle cell disease have to travel to England for treatment (Akid, 2001), socio-economic factors (education, employment and income) are also seen to be important factors contributing but the consensus is that ethnicity is an independent risk factor for increased prevalence, severity and outcome of Systematic Lupus Erythematosus (Lewis, 2017) and sickle cell disease (Midence and Shand, 1992; Anionwu and Atkin, 2001). Differential access to MSK services is also explained in terms of institutional racism (Marteau and Dormandy, 2005). Research has documented that sickle cell disease (and thalassemia) is a marginalised condition because it is seen as a 'black' condition (Anionwu and Atkin, 2001) and consequently the framing of sickle cell disease by policy and practice has been reported as being disempowering and potentially disabling and racist (Berghs, Dyson and Atkin, 2015; Dyson, Ahmad and Atkin, 2016).

There is some evidence that gender dynamics play an important role in the management of Systematic Lupus Erythematosus. Whitehead and Williams (2001) conducted a study in England and Wales and found that women were not active partners in the management of Systematic Lupus Erythematosus. They argue that collaborations between doctors and patients to determine their treatment and care was a rare occurrence, possibly because the power is often in the hands of White men and patients are typically Black women. Furthermore, McKenna and Ludwid (2008) in their study with Caucasian and South Asian women diagnosed with osteoporosis in the UK concluded that GPs did not support patient's osteoporosis self-care options and would not go beyond drug prescriptions. They also found that in many instances younger women were more informed about osteoporosis self-care options than GPs and osteoporosis sufferers wanted closer attention from GPs.

Another barrier when accessing MSK services is related to cultural differences and the impact of an individual's beliefs and practices which might affect their decision to seek medical help. The evidence base highlights different cultural attitudes to pain, illness and drugs (Adebajo et al., 2018). Patients with RA and Systematic Lupus Erythematosus reported to differ in their views on the need for therapy and poor adherence to drug therapies when compared to their White counterparts (Kumar et al., 2008; Kumar et al., 2015). Health beliefs and expectations also influence MSK symptoms and associated disability (Hameed and Gibson, 1997; Madan et al., 2008), with some empirical studies highlighting differences in MSK pain between Black, Asian and ethnic minority (BAME) groups and patients from the white ethnic group (Alison, et al., 2002). Culture also impacts on communication and poor English language fluency influences treatment adherence and can also lead to stereotypes (Adebajo et al., 2018). Providing information in BAME languages may not be effective due to patient's illiteracy in their vernacular (Chan, 1998; Adebajo et al., 2018).

3.0 Main themes emerging from the literature review

Enablers

The MSK literature identifies the need for culturally competent healthcare services and professionals. Arije-Bosun and Hayes, (2017) suggest there is a need to raise awareness among healthcare assistants (HCA). More specifically, how they understand sickle cell disease and how they communicate effectively with people, their families and carers, suggesting that this is particularly important in areas where there are high numbers of people from ethnic groups with a high prevalence of sickle cell disease e.g. Nigerians (Arije-Bosun and Hayes, 2017).

Other papers (mostly those reporting the incidence and prevalence of MSK conditions) highlight the need to increase awareness in at risk racial/ethnic populations to expedite diagnosis. In the case of systemic lupus erythematosus Lewis and Jawad (2017) suggest ethnically personalised treatment algorithms may help long-term outcomes. Suggestions for interventions for sickle cell disease focus on prevention and focus on the importance of improving knowledge, understanding and management of the disease for patients, caregivers (Asnani, 2016) and HCA's, nurses and other healthcare professionals (Akid, 2001; Arije-Bosun and Hayes, 2017).

3.3 Effectiveness of interventions/education programmes for improving the experience of healthy ageing for BAME groups

The literature review identified one paper on patient education in RA and the effectiveness of the ARC booklet and Mind Map (Walker et al., 2007) but this is not specifically for BAME groups. The ARC booklet and Mind Map were associated with increased knowledge of RA. Walker et al., (2007) concluded that different educational strategies are needed to improve health literacy among poor readers.

The scoping review did identify papers (n=3) on pregnancy and MSK (specifically Systematic Lupus Erythematosus, and sickle cell disease) interventions but these papers have been excluded from literature review as they did not meet the inclusion criteria. Overall there is a dearth of published evidence on specific interventions/ education programmes for improving the experience of healthy ageing for BAME groups.

4.0 Summary key findings and implications of the literature review

4.1 Summary key findings

Prevalence

- There is a paucity of information on the prevalence of MSK conditions, barriers and enablers and interventions/education programmes for improving the experience of health ageing for BAME groups in the UK.
- The burden of MSK is increasing in developed countries.
- Overall prevalence of MSK is reported to be higher in BAME groups.
- Prevalence of MSK conditions vary by ethnicity, gender and age.

Barriers and enablers

- There is a dearth of literature exploring the experiences of BAME people living with MSK.
- There are a number of intersecting personal factors acting as barriers: socio economic status (education, occupation, income), ethnicity (including the role of culture in help-seeking and communication) and gender.
- There are a number of structural factors acting as barriers: geography/availability of services, institutional racism and doctor-patient relationship.
- Enablers have been reported in the literature as culturally competent healthcare services and professionals, increasing awareness in at risk populations to encourage help-seeking, focus on prevention and managements.

Effectiveness of interventions/education programmes

- This literature review did not identify any interventions/education programmes specifically for BAME groups. The literature review identified 3 papers on pregnancy and MSK (specifically SLE and SCD) but these papers did not meet the inclusion criteria so were excluded from the literature review.

4.2 Implications of the literature review

BAME groups have a higher prevalence of MSK conditions but there is a dearth of literature exploring the experiences of BAME people living with MSK. The available evidence on the barriers and enablers identifies a number of intersecting personal and structural barriers to help-seeking for MSK but no interventions/education programmes for BAME people living with MSK were identified as part of the literature review. The results of the literature review only found one paper on patient education in RA and the effectiveness of the ARC booklet and Mind Map (Walker et al., 2007) but this is not specifically for BAME groups. The ARC booklet and Mind Map were associated with increased knowledge of RA. Walker et al., (2007) concluded that different educational strategies are needed to improve health literacy among poor readers. Consequently there is a need for more culturally competent MSK interventions targeted at BAME communities. Local level initiatives supporting BAME people living with MSK may exist but these are not reported or identified in this literature review. A failure to support BAME people at risk or living with MSK conditions is likely to perpetuate inequalities.

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