Review

Pain amongst ethnic minority groups of South Asian origin in the United Kingdom: a review

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There has been a considerable amount of literature published on different aspects of health in ethnic minority groups resident in the UK [1]. The central issue of such health research has been on the differential occurrence of specific diseases or medical conditions in ethnic minority groups in relation to indigenous UK populations. Such differential rates of occurrence may, through epidemiological investigation, provide clues to the aetiology of disease. The main aim of this article is to review research carried out investigating ethnicity and the experience of pain and related health-seeking behaviour in individuals of South Asian origin resident in the UK. First, the review will determine whether there is any evidence for differential rates in the occurrence of pain in ethnic minorities of South Asian origin relative to the indigenous population of the UK. Possible explanations for differential reporting of pain will then be assessed, including issues relating to social difficulties and acculturation, but with specific emphasis on cultural interpretation of pain and pain thresholds (the subject of much research in the literature). Finally, the literature describing the experience of psychiatric distress, which is a common co-morbidity of the chronic pain experience, in ethnic minority groups of South Asian origin will be appraised.

Defining ethnicity

The term ‘ethnic group’ is used in preference to ‘race’ in this review. Although it is evident that ‘race’ is used considerably more frequently in the medical literature (a Medline search from 1985 to 1990 found that ‘race’ was mentioned in 5892 publications compared with 762 publications using the term ‘ethnicity’ or ‘ethnic group’ [1]), such terminology has been criticized as giving an inaccurate description of causation [2]. Race implies a genetic basis when considering differential health status, suggesting that differences identified between individuals are fixed or predisposed. Ethnicity is a cultural term, implying a group of people with a shared distinctive culture and a common language, and as such represents a shared national identity. In considering both the reporting of pain and consultation patterns, such ‘non-biological’ cultural factors may be particularly important.

In the UK, ethnic minority groups represent almost 5% of the total population. It is evident from reviewing the literature that consultation patterns, reporting of pain and co-morbidities such as psychiatric distress vary considerably between different ethnic minority groups (e.g. Afro-Caribbean and South Asian ethnic groups have been documented as having very different rates of psychiatric morbidity [3, 4]). For this reason, the current review focuses on the largest ethnic minority group: those of South Asian origin (with an ancestry from the Indian Subcontinent: India, Pakistan or Bangladesh), which represent approximately half of all ethnic minority groups in the UK.

Consultation behaviour

A consistent finding in the literature is that adult Asians attend general practices more frequently compared with the European population [5, 6]. A large-scale community survey comparing aspects of illness behaviour in Asian-born and British-born residents in London, UK, found that Asian men were more than twice as likely to consult their general practitioner (GP) in the previous 2 weeks, irrespective of self-assessment of health or presence of illness/disability. Balarajan et al. [6] examined the levels of GP consultations among the different ethnic groups resident in Britain, and noted a 2-fold excess of consultations for Pakistani men aged 16–44 yr in comparison with European men, with higher rates also evident for Pakistani women aged 16–44 yr relative to European women. A further study of a group general practice in London found a marked increase in the standardized consultation ratio for Asians [7]. Such differences in health-seeking behaviour are not just evident in adults of the Asian population—children and young people from South Asian ethnic groups have also been found to be more likely to consult a GP compared with European children and children of other ethnic groups [8]. However, it is not clear whether such findings...
reflect true differences in morbidity or differing perceptions of illness leading to greater utilization of health care.

Despite the greater frequency of consultations, the use of out-patient services has been noted to be significantly lower among Asian adults and children [8, 9]. This may indicate that GPs manage and/or interpret symptoms differently in such groups. Further, a study in the West Midlands found that Europeans were more likely to bypass their GP by visiting emergency clinics, whilst Asians would be more likely only to attend such services following referral by their GP [10].

It has been suggested that the higher usage of primary care services by the Asian population represents an extra ‘burden’ on the work load of GPs. However, the study conducted by Johnson et al. [10] observed that few of the Asians who consulted their GP had the consultation classified as ‘vague or poorly described symptoms’. This suggests that such consultation represents genuine need, although the precise nature of this remains unclear.

Musculoskeletal pain is one of the most common reasons for morbidity and consultation to general practice [11]. If increased consultation rates observed in ethnic minority groups of South Asian origin generally reflect genuine differences in morbidity, it would be expected that consultation rates for musculoskeletal pain would also be higher than in the European population. Unfortunately, studies of differential consultation rates of South Asian ethnic minority groups and European populations tend to focus on consultation patterns alone without considering the reasons behind these consultations. However, one study of an urban group general practice reported that Asian patients had significantly higher patient consultation ratios for back pain compared with native British and Southern Irish patients [7].

Occurrence of musculoskeletal pain

It is important to consider the occurrence of musculoskeletal pain in ethnic minority groups of South Asian origin compared with Europeans in the general population set in the context of possible differences in health and health-seeking behaviour in these groups. Information on rheumatic disorders experienced by ethnic minorities of South Asian origin is scarce, with few studies focusing on musculoskeletal symptoms in ethnic groups living in the UK. A cross-sectional survey of residents in Glasgow compared South Asians aged 30–40 yr with Europeans in terms of various measures of health [12]. South Asian men reported significantly less musculoskeletal symptoms in the previous month with 14% experiencing such symptoms compared with 31% in the general population. South Asian women, however, reported slightly more musculoskeletal symptoms than the general population (35 and 26%, respectively). The only study specifically designed to investigate whether there was differential reporting of pain for ethnic minority groups of South Asian origin in the community found an increased occurrence of both regional and widespread pain in Indians, Pakistanis and Bangladeshis relative to the local European population in an area of Greater Manchester (T. Alison, personal communication).

The prevalence of musculoskeletal symptoms in South Asian countries is largely unknown, therefore few comparisons can be made with prevalence studies set in the UK. Two studies have focused on rates of rheumatic symptoms between urban and rural populations of Pakistan [13, 14], with musculoskeletal disorders being more common in the urban communities. One recent study, however, compared the prevalence of rheumatoid arthritis and other rheumatic diseases amongst Pakistanis living in England and in Pakistan [15]. Non-specific musculoskeletal pain, knee pain, low backache and soft-tissue conditions were all found to be more common in Pakistanis living in England. Possible explanations for the more frequent reporting of such symptoms include aspects of living or working conditions in the West, and the colder climate, which, anecdotally, has been reported to accentuate musculoskeletal pain. Research has shown that ethnic minority groups experience chronic social difficulties, e.g. poor housing, low income, poor English, which must be considered in any possible explanation for differing morbidity rates. The authors suggest that there could also be a greater willingness to report pain in a more sophisticated and better educated population.

It is clear that more research is required in this area to establish whether the prevalence of musculoskeletal pain is greater in ethnic minority groups of South Asian origin and, if so, whether this directly results in a greater occurrence of consultations in general practice. This will have important implications both for gaining a greater understanding about the aetiology of pain-related disorders and for providing health care provision and management.

The experience of pain

A considerable amount of research has been conducted assessing the relationship between ethnicity and the pain experience, including work on the differences in thresholds of pain, the intensity of post-operative and laboratory-induced pain, as well as health-seeking behaviour. However, the majority of this research has concerned Afro-Caribbean ethnic minority groups with only a minority of studies concentrating on the pain experience of South Asian groups.

There are two general approaches to studying the pain response: one set in hospitals or clinics to examine pain behaviour following a common insult (e.g. type of operation) and the second in laboratories allowing observation of painful stimuli and the subsequent response. Suggestions from both types of study have indicated that members of ethnic minority groups have a different level of pain tolerance in comparison with European populations. Clinical studies have shown a difference between ethnic groups in terms of their tolerance of pain and the amount of analgesics required [16–18]. Houghton et al. [17] assessed the amount of analgesia required following upper abdominal surgery.
in European and Asian patients. He found that Asian patients required less post-operative analgesia than the European patients. Such a result could be attributed to cultural and psychological factors, e.g. Asians being prepared to tolerate more pain or their pain perception differing from that of the European patients. However, pain scores were assessed in both groups throughout treatment (although no information is given regarding how these were derived) and were observed to be similar in the Asian and European patients. One hypothesis put forward was that the observed difference was associated with Asians being more sedated by the analgesia, hence their requirement for additional analgesia was reduced. However, it cannot be discounted that this study did identify a higher tolerance of pain in Asians than Europeans. Conversely, a review article of literature on pain-induced studies [19] found that, in general, Europeans had a higher pain tolerance and pain threshold than Asians. However, the marked variation in the populations studied and the methods used led the authors to conclude that there was no consistent evidence that ethnic differences existed regarding pain response. Clearly, additional research is required to investigate potential differences in pain perception and pain tolerance in ethnic minority groups of South Asian origin. If a greater pain tolerance is identified, it is likely that any increases in the occurrence of reported pain and consultations for pain in these groups are not entirely related to perceptions or attitudes towards the experience of pain.

Psychiatric morbidity

Psychiatric distress (and in its extreme form mental disorder) is a common co-morbidity of the chronic pain experience. Research into the prevalence of psychological illness amongst ethnic minority groups of South Asian origin in the UK has yielded a diversity of results. This may be explained by the different settings and research instruments used. Hospitalization rates show that South Asians have considerably lower rates of psychiatric admission than native Europeans [20]. Similarly, studies in psychiatric and psychological outpatient departments reveal that South Asians are under-represented [3, 21]. On the other hand, studies looking at primary care consultations have shown that South Asians consult their GP more frequently than native Europeans [22, 23]. These observations have given rise to the view that the outcome of the GP consultation, in terms of referral, may be a factor in the utilization of psychiatric services by South Asian minority groups. In this regard, community- and primary care-based studies have consistently demonstrated that South Asians and other immigrants from non-Western cultures tend to express psychological distress through somatization or somatic metaphors more frequently than native Britons [24]. It has also become apparent that this cultural variation in the expression of psychological distress does make it difficult for GPs to recognize the disorder in South Asian minorities [25] and that standard screening instruments such as the General Health Questionnaire (GHQ) may underdiagnose psychological distress in these ethnic minority groups [25].

There is much support for an association between psychological distress and pain symptoms. This applies across cultures. Thus, Watts [26] reported that 27% of his patients with depression presented with pain as a complaint, while 60% of Von Knorring’s [27] patients with depression had experienced some form of somatic pain. Pain is also a frequent complaint among psychologically distressed South Asians [12]. These observations cannot separate cause and effect. However, recent data from community studies of musculoskeletal pain syndromes have demonstrated that adverse psychological factors do predict the future onset of both regional and widespread pain [28], and are also associated with a poor outcome [29, 30]. A number of factors have been found to be associated with psychological distress in South Asians. These include stress at work and at home, a low standard of living, unemployment, being a victim of crime, absence of a confidante and difficulty speaking English [31]. Further, different language or social groups of South Asians show different levels of psychological distress, with Muslims and Hindus reporting greater levels of distes compared with Sikhs [31].

Acculturation

Acculturation is the extent to which an individual who migrates from the country in which they were born adopts the values, beliefs, culture and lifestyle of their host country [32]. Acculturation has been perceived to have both positive and negative effects on health. It has been suggested that the greater the level of acculturation, the less likely it is that environmental factors will explain differences in health outcomes between immigrants and individuals born in the host country [33]. There are no studies evaluating the effect of acculturation on the prevalence of psychological morbidity and the occurrence of musculoskeletal pain among Asians in the UK. However, there is evidence that as ‘non-Westerners’ become more ‘Westernized’, the form of psychological distress closely resembles that seen in Westerners. In this regard, Racy [34] showed that traditional Arabs suffering from depression reported somatic symptoms almost exclusively; however, as they became more ‘Westernized’, their symptom complex resembled that seen in the West, including more reports of guilt and self-depreciation. There is also evidence that as ‘non-Westerners’ become more integrated into their host or new country in the West, levels of psychological distress reduce [35]. If this applies to South Asians in the UK, psychological morbidity would be lower amongst those who are more acculturated into the British culture.

Summary

It is clear that individuals from ethnic minority groups of South Asian origin report more frequently to general
practice than native Europeans in the UK. Whilst it is not possible to establish whether this directly relates to increases in morbidity within these groups, it has been suggested that the occurrence of musculoskeletal pain is also higher in South Asians resident in the UK relative to native Europeans. It will be necessary to establish whether there is indeed an increased occurrence of musculoskeletal symptoms in these groups and to determine their ‘aetiology’. Despite the methodological challenges of conducting such studies, they can provide enormous potential benefits in terms of the provision of appropriate services, then the management and, ultimately, the prevention of chronic disabling musculoskeletal pain.

References