Chronic pain in older people

The population around the world is ageing. By 2050, it is anticipated that we will see an increase in the population of adults over the age of 65 years to 36%. The potential to live longer will result in an anticipated increase in the over 80 years age group by more than three times.[1] The types of pain seen in the older population are widespread and management can be complex.

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In the UK, we have seen an increase of 1.7 million people over the age of 65 years with a decrease in the under-16 year olds from 21% to 19%.[2] In 1984, it was estimated that there were around 660,000 people aged over 85 years. This had doubled by 2009 to 1.4 million and is estimated to reach 3.5 million or 5% of the total population by 2034. The frequency of pain being reported is very variable according to the population studied. For example, studies into the community dwelling older population suggest that between 50% and 73% have pain as a problem, and it has been suggested that this number increases to as high as 80% amongst those living in care homes. So pain amongst the older population is certainly widespread.[3,4]

The types of pain seen in the older population can also vary. We see the usual types of acute pain that can become a medical catastrophe and are found to be poorly managed in care settings due to fears of overdose and other comorbidities which preclude the use of some analgesic drugs.[5] Common chronic pain conditions seen in older adults include; osteoarthritis, post herpetic neuralgia, post stroke pain and diabetic neuropathy. We should also remember that 67% of cancer deaths occur in the over 65 population, and cancer pain is often present.[6]

There has been some debate within the literature suggesting an alteration in pain processing which may exist with this group.[7,8] Altered physiology of peripheral and central pain mechanisms, combined with psychological attitudes such as stoicism and reluctance to confirm pain, are key factors.[7] However others take the perspective that pain is present in the same format irrespective of age.[9]

Differing perspectives of "old age"

What constitutes old age? Such a definition is not without controversy. In the past, many developed countries have defined old age as the point at which retirement from paid employment occurs. But today, people often work beyond their retirement age, either supporting their children in the care of grandchildren or in paid full or part time employment. An alternative perspective was proposed by Glascock and Feinman[10] from an international anthropological study conducted in the 1970's. They suggested three main categories; 1) chronology, 2) change in social role (ie. change in work patterns, adult status of children and menopause) and 3) change in capabilities (ie. invalid status, senility and change in physical characteristics). Results from this cultural analysis of old age suggested that change in social role is the predominant means of defining old age.

Effects of chronic pain on older people

The impact of chronic pain is well documented within the literature as causing depression, anxiety, sleep disruption, weight loss and limitations in the performance of daily activities and function.[11]

Recent research has demonstrated associations between pain and depression, negative mood, social isolation and physical activity level, which all impact upon quality of life in the general population.[12-17] Such burdens can be compounded when the adult is older and more likely to experience confusion.[18] Furthermore, older adults with pain do appear to consider their health to be poorer[15] and utilise more healthcare services than those without pain.[19]

A study by Hart-Johnson & Green[20] reported that older females with chronic pain are more likely to have lower physical and mental health status than their counterparts without chronic pain. Not surprisingly, studies suggest a strong association between chronic pain and poor quality of life.[21] For example, a recent study by Simsek et al[22] investigated the relationship between pain, health related quality of life and satisfaction with life in older adults over the age of 65 years. A total of 163 participants took part in the study. The investigators found that there was a significant impact on satisfaction with life and health-related quality of life (measured with the Nottingham Health Profile) associated with pain and that pain severity was associated with social isolation.

In other research, a survey of 1,210 participants with chronic pain[23] demonstrated a significant impact upon mood, sleep, appetite, mobility and participation in communal activities. Chronic pain impinges upon autonomy regardless of age, with the individual being at the "mercy" of their pain and the healthcare professional. Most worrying within a recent Patients Association[23] report was the fact that 34% of older adults with pain viewed their GP treatment as ineffective and 26–36% as unsuccessful at improving quality of life. 29% of participants commented that they had been told by their GP that they had to learn to live with the pain.

Whilst GPs are the frontline of healthcare professionals, there are only very few with a special interest in pain and relatively few participants (23%) were referred to pain specialists. A second report produced by Help the Aged[24] has many accounts of the impact of pain upon the individual and the implications for autonomy. If we use our definition of older age as proposed earlier by Glascock and Feinman,[10] having a good life for an older adult requires a level of autonomy. As Help the Aged[24] advocates, it is essential that government, policy makers, regulatory and professional bodies, the National Health Service and social care agencies and research organisations join forces to combat the impact of pain amongst the older population.

Is a good life "freedom from pain"?

For some people being free of pain means having a good life, but others find it possible to find good things in life despite having chronic pain. This is because pain is such a subjective phenomenon that the experience is different for each individual. As discussed below, the ability to adapt can be a key factor. Probably the best research paradigm for investigating peoples' experiences of pain is qualitative research. Coyle and Tikoo[25] suggested that good qualitative research though challenging, has much to offer the understanding of pain. There have been some qualitative studies which may throw light on the particular experiences/issues facing older people who have chronic pain. Lansbury[26] noted the prevalence of chronic pain among older people and suggested that older people experience psychological and physical barriers to managing pain. She noted that older people held a fear of loss of independence and control and that they lacked information about their condition. She found that older people may not use cognitive coping mechanisms, that they prefer their own version of treatments and so use informal coping strategies and that they do not like physiotherapy and exercise as preferred treatments. How pain is perceived and managed by older people and health professionals are important factors. Older people have a vast amount of "life experience" that can influence their own attitude to chronic pain. They may not like psychological services, but may show a preference for activities that offer them enjoyment and distraction from chronic pain;.playing bowls, visiting family and friends, listening to music and membership of a church community.[27]

Health professionals also have perceptions that may influence how chronic pain is managed. They may not believe the patient's account, they may not document the pain or may document it incorrectly and they may think the person exaggerates the pain. Shahady[28] suggested 50% of older people have beliefs that may inhibit diagnosis and effective management. Chronic pain may also present a serious challenge to health professionals because of comorbidities. As

Klinger[29] noted, assessment of pain should form part of all assessment of older people. It is worth noting here that Gibson and Helme[30] suggested that chronic pain peaks in prevalence by the age of 65 and that there is a decline in reported pain from the age of 75 onwards.

Research with older people

Qualitative methods of research allow participants to speak for themselves. In a study published in 2005 Sofaer et al[31] investigated the practical issues facing older people who suffered chronic pain. A "Grounded Theory" approach[32] was utilised when interviewing 63 people over the age of 60 recruited through two pain clinics. This approach stresses the importance of the context in which people function.

Grounded Theory has four main features: it aims to generate relevant concepts, it explores ideas and perceptions, the theory is not pre-determined and it utilises the notion of equality between the researcher and participant. Thus, the theory is discovered, developed and provisionally verified through systematic data collection and analysis of data. The data and analysis interact at each stage and it is difficult to predict the tempo of emerging information. So as one makes the research journey there is the opportunity for constant comparison of information as themes and categories are identified. Each interview is used to provide cues for the next. In many ways it is the ideal approach to finding out about the life (and pain) experiences of older people. This is important of course when it comes to understanding pain in a clinical setting. Of particular interest in this study were the strategies older people used and how they aimed to improve their lives. 42 female and 21 male participants were interviewed in the privacy of their own homes. The interviews were audio-recorded, transcribed, read through several times and checked for accuracy. Initial questions/answers provided ideas which guided further questioning and each set of data were compared with incoming data. Eventually the material which was coded was collapsed into themes which formed the basis of the results. Two of these themes were a desire for independence and control that fitted nicely with the results of the study by Lansbury,[26] cited previously and adaptation to life with chronic pain. With regard to the former it was obvious that participants wanted to remain independent. Despite loss of mobility and agility, this refrain was prevalent. There was a strong reliance on technical help—people had made alterations to their homes and gardens, for example dispensing with ground flower beds and grass and replacing them with raised flower beds and gravel. A plethora of aids was reported, including walking sticks, bath seats, chairs, touch lamps and magnifying glasses.

Adaptation to a life with pain was an important feature for almost all the participants in this study. Once pain had been "accepted" as a part of life there was a determination to get on and live to the full. Another feature of adaptation to pain was the desire to help other people and this consisted of helping family, doing committee work, carrying out small favours for neighbours and being host to overseas students.

One outstanding feature of the study was the fact that almost all participants were keen to get out and about. Looking good and feeling good was paramount for almost all of the female participants.

Almost all of the participants appeared to demonstrate perseverance[33] and they were on the whole pleased to talk about how they coped with their chronic pain. There was, however, a sub-group of 16 participants from the original sample of 63 who had a diagnosis of neuropathic pain and who were interviewed in a subsequent study.[34] Neuropathic pain is relatively refractory to treatment and it was found in this small qualitative study that the participants had a combination of pain-related limitations and uncertainties resulting in social withdrawal and isolation for both themselves and their spouses. These results highlighted the need to pay closer attention to the interpersonal and social needs and quality of life for older people suffering neuropathic pain and their families. Social isolation and withdrawal because of chronic pain are just two of many topics which are under-researched particularly when it comes to older people.

Differing pain management needs of older people

Whilst it may be thought that people with chronic pain suffer equally (albeit their own pain is subjective and known only to them), it is recognised that the older patient sub-groups have some distinct features not commonly found with other patients. This makes it necessary

to consider separate aspects of their chronic pain when devising management strategies. In an older population, problems can include poor medication management,[35,36] multiple medications with increased likelihood of interactions, increased likelihood of reduced liver and kidney functions[37] with additional implications for drug metabolism; multiple morbidities with additive or potentiating effects on the impact of chronic pain. There may often be misconceptions with regard to older peoples' ability to perceive pain. Whilst it is often thought that older people have a decreased sensitivity to pain,[38] further studies using different types of pain inducing modalities eg. thermal, mechanical and chemical, failed to find an age-related difference, and in fact found that in many cases, certain pain thresholds may actually decrease in older people, causing an increase of pain at an earlier stage.[39] It has been suggested that whilst some changes may exist in the perception of pain by older people, these changes are in fact bi-polar in nature: whilst some aspects of pain experience may be lessened, others are heightened.[40] This would suggest that further research is required to investigate the different pain management needs of older people.

Driving research

Comparatively, chronic pain in the older person is poorly researched. In an average year over 4000 papers are published on pain, with less than 1% involving studies specifically on older people.[41] If these figures remain accurate, or close to the current situation, then this leaves a significant knowledge gap in an important age group.

Clinicians have a major role to play in driving research in pain in older people, but in order for this to occur, there needs to be recognition that there is a serious problem to be addressed. In 2006, Cayea et al[42] studied a group of primary care physicians (PCPs). 153 of 643 surveys (24.1%) using patient vignettes were completed and returned by randomly selected PCPs in Western Pennsylvania USA. The team investigated the PCPs' knowledge of chronic low back pain in the older adult and the confidence in their ability to diagnose chronic low back pain in the older adult (including the confidence to differentiate between low back pain conditions). It also looked at the association between the PCPs' confidence and their knowledge. The results indicated there was a mixture of knowledge levels, but that regardless of this, PCPs were not confident in diagnosing sub-categories of low back pain in older adults. In addition, no correlation was found between the PCPs' level of knowledge and their confidence. Individual study participants commented that the survey forced them to confront their own "ignorance", which the researchers believed opened a window to creating an educational opportunity.

Interestingly, Weiner et al[43] found that in a study of the United States Geriatric Medicine Fellowship of over 100 geriatric specialists, all participants agreed that there was a general deficiency of knowledge in several areas of practice. These included; 1) comprehensive musculoskeletal assessment; 2) neuropathic pain evaluation; 3) low back pain indications; 4) multidisciplinary team roles; 5) non-pharmaceutical modalities; 6) effect of physical and non-physical goal setting and; 7) effects of ageing on pharmacokinetics/dynamics. It is of no wonder then that there is likely to be poor management of chronic pain in the older person, given that these elements play a large part in pain management. Two other findings shone through in this study. First, the faculty and fellows in the study placed different weightings on the importance of these elements, showing a disparity between current educators and future clinicians, and second, all participants showed confidence in their abilities to implement pain related clinical skills, despite having identified numerous and crucial shortfalls in their pain management skills. Whilst this shows an obvious need to drive research to enhance the knowledge and skillset of clinicians, it also highlights a need for the clinicians' own attitudes towards older patients and chronic pain to be addressed.

Attitudes to older people with pain

Pain assessment and management for the older population is a complex process, and we have already noted that it may be inhibited by a range of factors. Some relate to the older adult themselves such as stoicism, reluctance to report pain, fear of side effects of medications or cognitive impairment.[24,44] Other factors are related to the healthcare professionals. Professionals tend to underestimate pain needs, under prescribe and under medicate, but this attitude is particularly prevalent when dealing with the older population.[45] Ageist attitudes pervade in the care of older adults in pain and there is a plethora of evidence that concurs with this.

Healthcare professionals tend not to ask older adults about their pain.[46, 47] This may include doctors who have been found to be lacking in their care and attitudes towards the older adult in pain. Overtreatment, under-treatment, lack of availability of doctors to discuss pain related issues and concerns and poor decision making have all been highlighted in a recent literature review in this area.[48]

It has frequently been an assumption within the general population and healthcare professionals that to grow old is to experience inevitable physical decline and consequent pain.[38] A number of examples of ageist attitudes have been identified in a recent survey by Help the Aged,[24] including failing to investigate symptoms fully and failure to refer older adults for essential treatments such as simple procedures or even lifesaving neurosurgery.[49]

It is well documented that negative attitudes prevail in the health profession and patient population with regards to certain aspects of pain management.[50] These include reluctance of patients to report pain due to possible stigma attached to chronic pain sufferers and a patient's reluctance to take opioids.[50] In addition to this, the health professionals themselves are cited as being reluctant to prescribe opioids for fear of causing addiction, and also having a lack of in-depth education with regard to pain management. Numerous studies have investigated the relationship between pain management and the attitude and knowledge of clinicians, student health professionals and health teaching staff toward chronic pain in general.[42-62] The findings of these studies remain consistent in that they find a general reluctance to treat chronic pain, and barriers to treatment can remain despite the experience of the clinician.

A study by Green et al[63] found that there was a negative correlation between the experience of the clinician and the quality of their pain management. Their finding was supported in a separate study by Garcia and Mattos-Pimenta[64] who found that staff within a pain centre in San Paulo, Brazil, did not have more appropriate beliefs despite having expertise and experience in pain management.

In addition to the difficulties mentioned, older people with chronic pain may also face difficulties regarding general attitudes to their healthcare, and subsequent pain management.

Dacey et al[65] studied a group of physician assistant students (n=85) about to graduate from university in Massachusetts. The goal of the research was to examine the participants' knowledge and attitude towards ageing and geriatric medicine in general. It was concluded that those participants with a higher degree of exposure to older people, had, in general, a more positive attitude toward the patient group, whilst those with less exposure showed negative or inaccurate views on older people. Again, these findings were supported by Lui and Wong[66] who examined the attitudes towards older adults in a group of junior doctors and registrars in a tertiary care hospital setting. They found that those with an increased exposure to the older patient had a more positive attitude toward their treatment, but in addition they found that in general there was a feeling of inadequate knowledge obtained from medical school, and the majority (76%) found that the most difficult aspect of dealing with an older person, was the likelihood of multiple pathologies.

In spite of studies spanning over 15 years, and continued calls for changes in undergraduate curricula, increased exposure to pain education for post-graduate professionals, and a closer adherence to recommended pain management techniques, little appears to have changed. Whilst attitudes and barriers are identified, there appears to be a presumption that additional education or experience alone will suffice to produce a natural improvement in pain management. Unfortunately, this may not be the case.

The evidence suggests that significant change also requires a change of attitudes, so that the increased knowledge is used effectively to the benefit of the older patients with chronic pain.

It is important that attitudes and beliefs are subject to change not only amongst the health professions but also within the general population. Where they are able, older people themselves should take responsibility for the continuation of their lives and living life as best they can. Where they are unable to do so themselves, help and guidance from family, friends and health professionals should ease their path to living life well. And that must include ensuring effective management of chronic pain.

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