

# Prevalence of Musculoskeletal Pain Among Old Inhabitants

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## Abstract

Rising proportion and burden of older people demands that health care professionals increase their awareness of the health and disability. The purpose of this study was to musculoskeletal pain among old people residing in old home. This was cross sectional study conducted among 100 people residing in a old home for a period of four months. Data were collected by pre tested structured questionnaires and in face to face interview. History of the study subjects as well as medical file was considered for diagnosis. Physical examination was done. Almost 95% of the respondents suffered from musculoskeletal pain. Lower back pain, knee pain, hip pain and neck pain were common. Almost 36% of the respondents suffered from joint limitation. Knee joint limitation was common. Almost 84% of the respondents suffered from muscle weakness. About 95% of the respondents had no postural deformity. Seventy eight percent of the respondents faced difficulties in activities in daily living and walking was common. It is concluded that prevalence of musculoskeletal disorder among geriatric people is high.

**Keywords:** prevalence; musculoskeletal disorder; old inhabitants

## Introduction

The proportion of older people will be tripled by the next couple of decades. In addition, the incidence of chronic musculoskeletal (MSK) conditions will also increase among the elderly people. Thus, in order to prepare for future health care demands, the magnitude and impact of MSK conditions from this growing population is needed. Research interest on population aging is a very recent origin and still a lot of research endeavor is needed to address the different issues relating to the same and inter-relation of those issues. There is a lack of information and research on elderly in health sector. There is need for further studies to improve health care of the elderly people. Very little studies have done in urban area of Bangladesh. Evidence suggests that health policy is announced by the government consisting of about 15 goals and objectives for improving health status of all segments of the population. But no emphasis is given to the urban elderly population. Normal ageing is responsible for the finite life-span of the human race. It is important for the medical/health professional treating the elderly to know the difference between changes secondary to normal ageing and changes which occur as a result of disease (Lee KS et al 1991). Lee KS (1991) also stated that there is ongoing research to increase our knowledge on the ageing process. Age-related physiological decline results in defective homeostasis responsible for the susceptibility of the individual to succumb in minor stresses. Knowledge

of physiological decline in the various organs has clinical implications in the interpretation of physiological tests, especially when the organ systems are stressed, in the need to adjust dosage of drugs given to the elderly and in the understanding of some atypical presentations of illness in the elderly.

## Methods

It was cross-sectional analytic study. The study was conducted among people aged 60 years and above residing in old home. This study was conducted for a period of six months. No sampling technique was applied because all geriatric people were considered as sample. A pre-tested structure questionnaire was used to collect data. Data were collected by pre tested structured questionnaires and in face to face interview. History of the study subjects as well as medical file was considered for diagnosis. Physical examination was done according to need. After data collection, data were sent to researchers, which were sorted, scrutinized by the researcher themselves by the selection criteria and then data were analyzed by personal computer by SPSS version 22.0 program. The open ended questions were grouped and categorized. Data were analyzed by descriptive statistics and inferential statistics.

## Results

Musculoskeletal pain	Frequency	Percentage
Yes	95	95
No	5	5
Total	100	100

If yes, where was pain or discomfort		
Hip	12	12
Knee	22	22
Shoulder+elbow+wrist+knee	14	14
Neck	11	11
Lower back	32	32
Shoulder	2	2
Wrist	1	1
Ankle	1	1
Total	95	95

**Table 1: Status of musculoskeletal pain in any part of body.**

Almost 95% of the respondents suffered from musculoskeletal pain. Among them 32%, 22%, 14%, 12% and 11% study subjects suffered from lower back pain, knee pain, shoulder+elbow+wrist+knee pain, hip pain and neck pain consecutively.

Joint limitation	Frequency	Percentage
Yes	36	36
No	64	64
Total	100	100
If yes, which joint		
Knee	27	27
Hip	2	2
Shoulder	3	3
Lower back	2	2
Elbow	2	2
Total	36	36

**Table 2: Status of joint limitation.**

Almost 36% of the respondents suffered from joint limitation. Knee joint limitation was common.

Muscle weakness	Frequency	Percentage
Yes	84	84
No	16	16
Total	100	100
If yes		
Back muscle	45	45
Thigh muscle	20	20
Neck muscle	9	9
Calf muscle	6	6
Elbow	4	4
Total	84	84

**Table 3: Status of muscle weakness.**

Almost 84% of the respondents suffered from muscle weakness. Back muscle and thigh muscle were affected among 45% and 20% respondents.

Postural deformity	Frequency	Percentage
Yes	5	5
No	95	95
Total	100	100
Type of postural deformity		
Kyphosis	2	2
Scoliosis	1	1
Lordosis	2	2
Total	5	5

**Table 4: Status of postural deformity.**

Almost 95% of the respondents had no postural deformity. Few of the participants were found kyphosis, scoliosis and lordosis.

Old people are an asset rather than burden if we properly take care because we have to step in that particular age group in certain period of life. Risk

## Discussion

factors for falls include muscle weakness, a history of falls, use of four or more prescription medications, use of an assistive device, arthritis, depression, age older than 80 years, and impairments in gait, balance, cognition, vision, and activities of daily living. The present study found high prevalence of musculoskeletal pain among elderly people though sample size was not too large. Lower back pain, knee pain, hip pain and neck pain were common. One third of the patients suffered from joint limitation. Knee joint limitation was common. Almost 84% of the respondents suffered from muscle weakness. The study by Krishnaswamy and Shanthi has also indicated that musculoskeletal problems like osteoarthritis, rheumatoid arthritis, myopathy secondary to hypothyroidism, cervical and lumbar spondylosis were the cause for falls in elderly. Neurological illnesses, which cause deterioration of sensorimotor function of muscle, contribute to falls. Musculoskeletal disease, physical disability or limited activity increased the risk of fall by two to four times (Davis, Ross, Nevitt and Richart, 1999). Many societies in Western Europe and Japan have ageing populations. While the effects on society are complex, there is a concern about the impact on health care demand. The large number of suggestions in the literature for specific interventions to cope with the expected increase in demand for long-term care in ageing societies can be organized under four headings: improve system performance; redesign service delivery; support informal caregivers; and shift demographic parameters. The annual growth in national health spending is not mainly due to increasing demand from ageing populations, but rather has been driven by rising incomes, costly new medical technology, a shortage of health care workers and informational asymmetries between providers and patients. A number of health problems become more prevalent as people get older. This includes physical health problems, especially musculoskeletal disorder (Saltman RB et al 2006). It has been estimated that population ageing only explains 0.2 percentage points of the annual growth rate in medical spending of 4.3 percent since 1970. In addition, certain reforms to Medicare decreased elderly spending on home health care by 12.5 percent per year between 1996 and 2000. This would suggest that the impact of ageing populations on health care costs is not inevitable (Meara et al 2004). Musculoskeletal disorders remain prevalent in the elderly population. Given the increasing proportion of elderly population in the world population and the burden of MSK diseases among the elderly people, efforts must be made to maintain their functional capacity for as long as possible through optimal primary and secondary health care. A total of 85 articles were included with 173 different prevalence estimates. Musculoskeletal disorders

are common in the elderly population, but due to heterogeneity of the studies, no general estimate on the prevalence of MSK can be determined. Women report more often MSK pain than men. Overall, prevalence estimates either remain fairly constant or increase slightly with increasing age, but with a tendency to decrease in the oldest (80+) people (Fejer R, Ruhe A 2012). From a health care perspective, the rising proportion and burden of older people demands that health care professionals increase their awareness of the health and disability of this particular population. Accordingly, there is a need to better understand the current magnitude and impact of MSK conditions from this growing population.

## Conclusion

Musculoskeletal pain was found almost all of them. Limited range of movement due to arthritic change was also common which ultimately affects daily activities including self-care. In order to improve the health status of the elderly population it is important to carry out more studies in different areas to identify various factors that are related to musculoskeletal problem.

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