

Musculo-skeletal pain and exertion felt by females while adopting awkward postures in kitchen

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■ **ABSTRACT** : Kitchen is the most intensively used space within home and demands a high degree of physical effort leading to fatigue. Moreover, home makers develop degenerative tissue changes and functional defects in the skeletal system due to muscular efforts and adoption of unnatural postures during work. The use of correct postures while performing any activity, the physiological stress on the body increases and leads to increase in energy expenditure and pulmonary rate of the worker. The awkward working postures for prolonged period of time due to poor designing of work area can lead to musculo-skeletal problems and injuries like feeling of pain, exertion and stiffness in various parts of the body. These problems result in decreased working capacity of workers. Therefore, organization of work surface and storage in the kitchen need special consideration of anatomical measurements of the users to reduce musculo-skeletal pain and exertion of the home makers. The present study was also conducted in the context only with the objectives to find out the most awkward postures adopted by females in kitchen and to assess their musculo-skeletal pain and exertion level by using subjective assessment scales (Corlett and Bishop Scale, 1976 and Varghese RPE scale, 1994). It was found that postures like full and half forward bending, side bending on knees, standing with stretched arm, standing with the raised feet and squatting postures were the most awkward postures adopted by females in their kitchen. Moreover, the respondents felt moderate pain in lower and upper back, shoulder joint and neck. They also felt exertion and stiffness in lower back, upper back and neck due to inappropriate dimensions of storage structures. Therefore, modifications were suggested regarding designing and arrangement of storage structures on the basis of storage principles to reduce their postural discomfort.

■ **KEY WORDS**: Musculo-skeletal pain, Exertion, Awkward postures

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