

# Postural analysis of lumbo-sacral region of rural women performing dish washing activity in Deoria district (U.P.)

JAHIDA KHATOON AND REKHA DAYAL

Accepted : April, 2009

See end of the article for authors' affiliations

Correspondence to:  
**JAHIDAKHATOON**  
 Department of Family  
 Resource Development,  
 M.A. Bai College of Home  
 Science, C.S. A. University  
 of Agriculture and  
 Technology, KANPUR  
 (U.P.) INDIA

## ABSTRACT

The study was carried out in villages Babhnauli and Kataura of Deoria district of U.P. state for postural analysis of lumbo-sacral region of rural women while dish washing. Multistage random sampling procedure was adopted to select the sample for the study. Descriptive cum experimental research design was used in the present study. Data were analyzed with the suitable statistical tools. The result of the study indicated that majority (45%) of the respondents belonged to the age group less than 30 years and were illiterate, while assessing body mass index for physical fitness maximum (75%) respondents belonged to the category 22.88 were found to be normal. Maximum angle of deviation of rural women was found 70° for dishwashing and were suffering from body pain.

**Key words :** BMI, Body angle of deviation, Body pain

Dish washing is most important household activity and comes under the category of moderate work. Approximately 30% of work force in developed countries and between 50% to 70% in developing countries is generally exposed to a heavy physical workload or ergonomically poor working conditions involving lifting and moving of heavy items and static muscular loads are common among many household and can lead to injurious to musculo-skeletal disorders. Such disorders are the main cause of both short term and permanent work disability. Hence, comfortable posture at work is always important because bad posture increases load on lumbar spine and body joints. Corlett *et al.* (1983) showed how the need to adopt poor working posture in order to perform task could lead to postural stress, fatigue and pain which may in turn force the operator to stop work until the muscle recovers. Typical example of such were situations found where operations have to find our work surface which are too low or where they have to crouch to see a work piece through a small window in a machine. Kroemer (1994) described the relationship between health complaints and musculoskeletal injury as a mountain with a wide base of common occurrences of tiredness, fatigue,

and discomfort. As the mountain rises, the complaints turn into the occasional aches, pains, and postural problems, followed by persistent pain and soreness. The present study was conducted to analyze the lumbar sacral region of rural women during dish washing.

## METHODOLOGY

The present study was conducted in Babhnauli and Kataura Villages of Deoria district of Uttar Pradesh. The descriptive data were gathered personally by using the interview method and for experimental data collection, various parameters were used. Angle of deviation and body posture were recorded by flexicurve. Multistage random sampling procedure was used for the study. Statistical analysis of the data were employed through frequency, percentage, mean, standard deviation, 5<sup>th</sup> and 95<sup>th</sup> percentile while inferential statistics employed were co-efficient of correlations.

## RESULTS AND DISCUSSION

It was observed from Table 1 that majority of the respondents belonged to age group less than 30 years. The highest mean height of the respondents were found

**Table 1: Distribution of the respondents according to physical characteristics**

N = 40

Sr. No.	Age	No. of respondents	Mean height (cm)	Mean weight (kg)	Body mass index	Remark
1.	> 31year	18 (45)	154.86	49.13	20.56	Normal
2.	31-40 year	12 (30)	152.5	53.33	22.88	Normal
3.	< 40 year	10 (25)	155.7	54.50	22.52	Normal

(Figures in parenthesis indicate percentage)