

## Indoor environmental condition, health and productivity of female workers

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### ABSTRACT

The present paper is an attempt to gather information regarding the various environmental factors including illumination level, noise level, humidity, temperature in the kitchen work station. For this a survey of eighty homemakers from Ludhiana was conducted. Majority of the surveyed kitchens were found having adequate light intensity, but there were also considerable number of kitchens where the illumination level were less than the minimum recommended levels. Amongst the various problems felt with illumination majority faced problems of less natural light in kitchen, followed by respondents who complained of poor visibility, uneven distribution of light, and a few reported absence of task light on the different centres of the kitchen. Results revealed that noise level in the kitchen varied from 40 to 85 dB and humidity from 44 to 56 %. Majority of the kitchens had maximum temperature in the cooking area which ranged from 30 – 31°C.

**KEY WORDS :** Light intensity, Indoor-environment, Ergonomics, Kitchen

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### INTRODUCTION

Being the most important room in a house, environment of the kitchen should be highly conducive when performing daily kitchen activities. Environment in which the worker works, viz., relative humidity, light intensity, noise and temperature etc. greatly affects the productivity, health and ergonomic cost of work. As stated by Chakrabarti (1997) the workstation must be ergonomically designed in accordance with human functions, such as: postural control and distribution of the body weight, visibility ranges for display and control areas, optimal positioning of the hands and foot control, and user's behavioral pattern in performing the tasks. The present study has been planned to fill the gap, and to evaluate the general working conditions of kitchen environment where majority of the time is spent by the homemaker in performing different activities.

### METHODOLOGY

Present study was conducted in Ludhiana city. A representative sample of 80 homemakers 40 each from

east and west zone of Ludhiana district were selected for the study. A self-structured interview schedule was used for collection of data. The interview schedule consisted of socio-economic status of the family which gathered information related to occupation, education, income, family type, family, size and specific information like kitchen noise level, kitchen illumination level, humidity and temperature. Besides that the problems faced by the homemaker due to various environmental conditions were also assessed. Data for the study were collected through personal interview method. Equipments like noise level meter, hygrometer, thermometer and luxmeter were used to record data. The data collected were tabulated and suitable statistical tool such as frequency, averages, percentages, correlation coefficient and standard deviation were used for analysis of data.

### OBSERVATIONS AND DISCUSSION

The findings of the present study as well as relevant discussion have been summarized under following heads:

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