3.0 Aim and Objectives

The main aim of the present study was to make an ergonomic intervention for reducing work related health hazards of carpenters engaged in different tasks and redesign the hand tool and workstation from the ergonomics point of view.

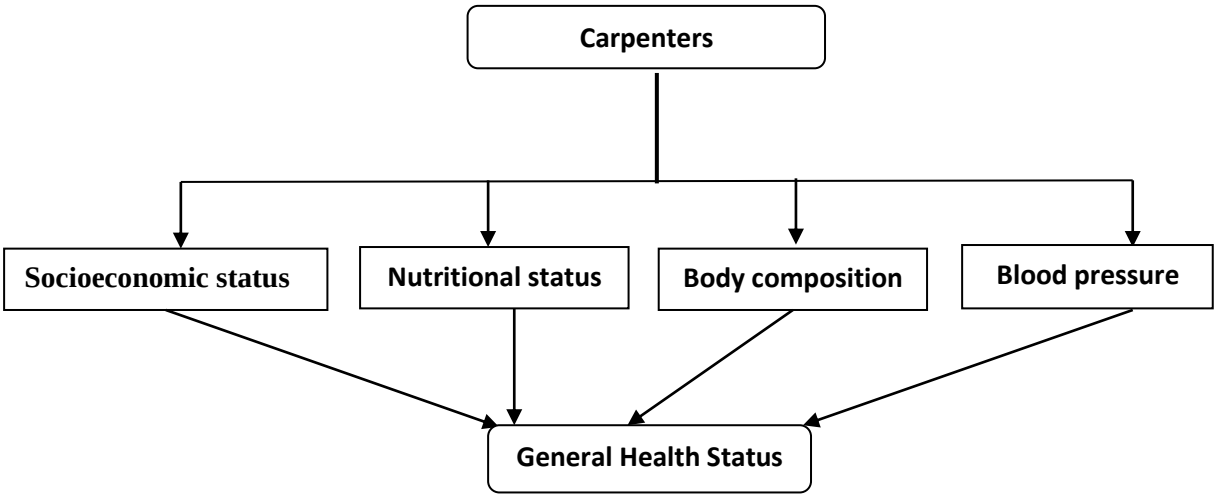
In the present study, the followings objectives are:

i. To assess the socioeconomic and nutritional status of the carpenters.
ii. To evaluate musculoskeletal disorders and the discomfort level of the carpenters.
iii. To evaluate the postural stress of the carpenters
iv. Ergonomic intervention for redesigning the conventional workstation and hand tool (carpenters chisel) used by the carpenters.

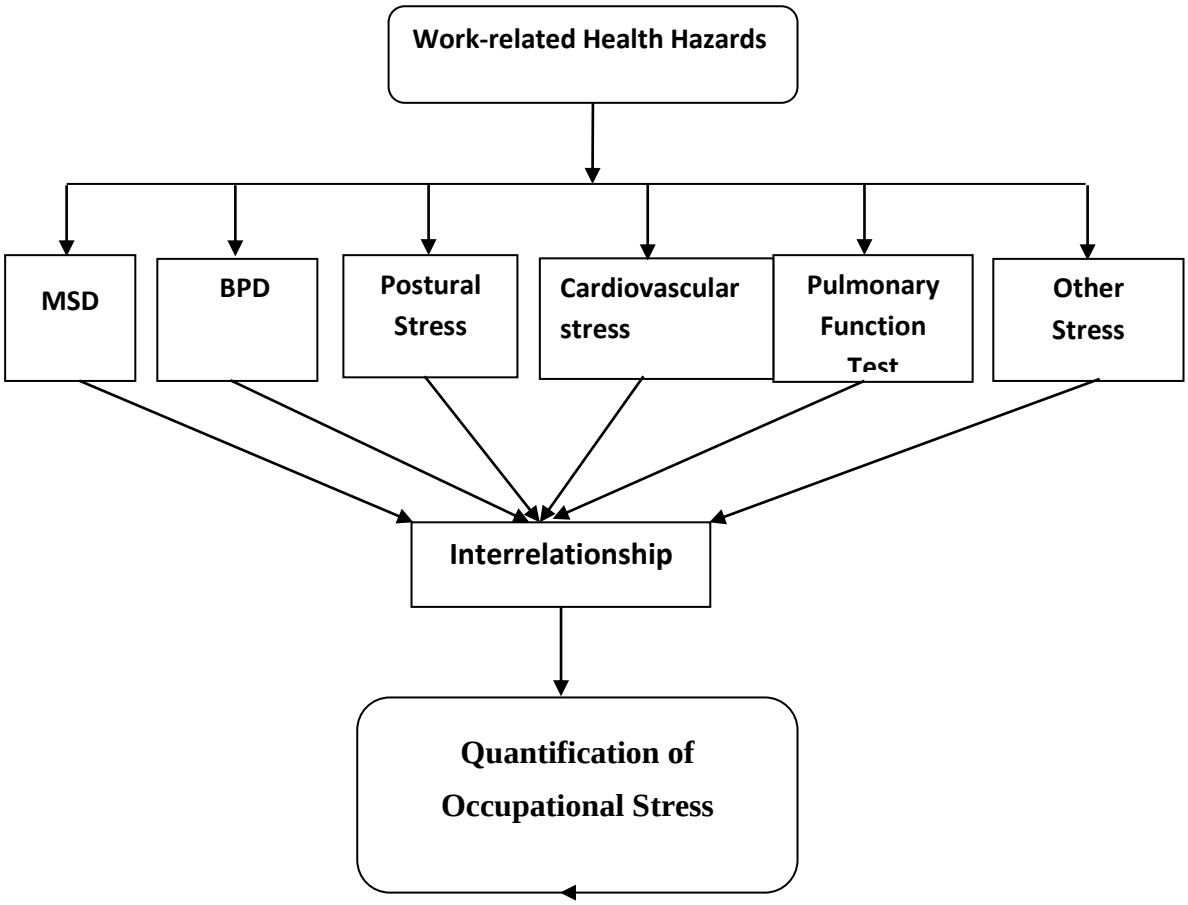
3.1 Experimental Design:

To fulfill the above objectives the experiments was done different phases. For each phase separate experimental design was made. Experimental designs are as follows

Phase-1: Assessment of general health status: In this phase socioeconomic status, nutritional, body composition and physiological parameters of carpenters were evaluated.



Phase-2: Evaluation of work related health hazards: In this phase, MSD, pain mapping, postural stress and physiological stress of carpenters were evaluated.



Phase 3: Ergonomic designing of chisel and optimization of the height of workstation: In this phase hand tool and workstation was designed by using anthropometric data of the user population and considering psychophysical responses of the users. This newly designed device optimized height of work station was tested again to evaluate its suitability and acceptability of the users.