4.0 AIM AND OBJECTIVES

4.1 AIM OF THE RESEARCH

The present study was intended to evaluate the effects of an integrated yoga-based pulmonary rehabilitation program measuring indicators of respiratory, autonomic, physical and psychological parameters in coal miners with COPD.

4.2 OBJECTIVES

1) To explore the effect of IAYT in improving pulmonary and autonomic functions in coal miners with stage II and stage III COPD.
2) To assess the benefits of IAYT as an add-on to conventional care in the management of dyspnoea and fatigue in coal miners with COPD.
3) To determine the effect of yoga therapy on functional performance and peripheral capillary oxygen saturation (SpO2%).
4) To examine the role of yoga on health status and quality of life in coalminers with COPD.
5) To evaluate depression and anxiety after 12weeks of IAYT in coal miners with COPD.
6) To find out the impact of yoga therapy on sleep quality and perceived pain in coal miners with COPD.

4.3 RESEARCH QUESTIONS

1) Can yoga be established as an effective tool in PR?
2) Can yoga be used to help patients with COPD within a short period without adverse effects?
3) Is yoga effective in improving functional exercise capacity of coal miners with COPD?
4) Can regular yoga practice help decrease dyspnoea and fatigue scores?

5) Can yoga bring about positive changes in pulmonary and autonomic functions of coal miners?
6) Can yoga improve functional performance and peripheral capillary oxygen saturation (SpO2%) of coal miners with COPD?
7) Is yoga effective in reducing anxiety and depression in coal miners?
8) Can regular yoga practice improve QOL and sleep quality?
9) Can yoga help in reducing pain?

4.4 RESEARCH HYPOTHESIS

Regular practice of yoga may influence pulmonary, autonomic parameters, dyspnoea, fatigue, health status, anxiety, depression, sleep quality and pain in coal miners with COPD.

4. 5 NULL HYPOTHESIS

There may be placebo effect of yoga on any of these parameters, either individually or altogether.

4.6 STUDY RATIONALE

Earlier investigations have demonstrated the effectiveness of yoga in improving pulmonary functions in patients with COPD. This study, as the first on coal miners in India, may take those results further by evaluating the effects of IAYT on all five layers of human existence, in a 12 weeks intensive yoga program. The rationale is that, because IAYT affects all levels of the human system, physical, mental, emotional and intellectual, it should bring about more extensive positive changes in patients with COPD. Not only it will improve specific pulmonary function variables, it may also reduce stress, and comprehensively improve all aspects of the personality, including overall physical and psychological health, emotional balance and QOL.