

CHAPTER - 4
AIMS AND OBJECTIVES

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4.0 AIMS AND OBJECTIVES:

4.1. AIMS: To conduct a 3-arm controlled trial to assess the efficacy of *Yoga* with and without *Rasāhāra* in reducing all T2DM markers, associated metabolic disorder risk factors and blood parameters, and *Āyurveda* markers for *prameha*, in early pre-diabetics.

4.2. OBJECTIVES

4.2.1 To recruit a sufficient number of participants to obtain required significances: G*Power analysis estimate, 30 in each arm for $p < 0.05$

4.2.2 To make 15 day-measurements on 5 biomedical parameters, pre-post measures on another 10 parameters, and pre-post assessments of *Āyurveda doṣa balas* and other variables.

4.2.3 To maintain a strict participants' regimen with minimal diet and lifestyle variations.

4.2.4 To evaluate any adverse events or side effects.

4.3. RESEARCH QUESTIONS

4.3.1. What are the relative effects of treatment of *Rasāhāra* + *Yoga* and that of *Yoga* treatment for T2DM on the chosen groups of variables in cases of pre-diabetes?

4.3.2. Are there any side-effects?

4.4. HYPOTHESIS: Both *Rasāhāra* and *yoga* systems will have beneficial effects, in all 15 biomedical variables, and in selected *Āyurveda* variables measured.

4.5. NULL HYPOTHESIS: No benefits will be found for the intervention groups.

4.6. IMPLICATION OF THE STUDY: Indian Systems of Medicine can offer cheap and effective ways of preventing, controlling and in certain cases, curing, T2DM.

4.7 RELEVANCE AND BENEFITS OF THE STUDY:

4.7.1 RELEVANCE:

1. The study is based on *Āyurveda* life style and herbs intake.
2. Medicinal values of herbs used in this study have been clearly described in *Āyurveda* texts.
3. The study is relevant to naturopathy treatments i.e. herbs, sprouts and uncooked food. According to naturopathy body fitness depends strongly on proper ratio of alkaline and acidic foods.
4. *Āyurveda* texts state that *āhāra-vihāra* eating and sleep patterns are equally important to keep fit. The study investigates *āhāra-vihāra* including food values to achieve optimal health for *prameha*.
5. According to yoga texts, *ādhiya Vyādhis* start at the level of *Manomaya koṣa* and can be rectify through *Vijnyānamaya koṣa* by adding yoga to the routine. Yoga practices used in this study were designed to overcome *ādhiya Vyādhis*.

4.7.2 BENEFITS:

1. The study will strengthen the importance of *Āhāra vihāra* according to *Āyurveda*.
2. It will encourage India's rural population to learn to depend on easily available herbs for their health care.
3. By learning their importance, the people will take interest in growing herbs, which will improve the quality of the environment and the soil.
4. The jail authorities at Bhopal Central Jail stated that a healthy improvement was seen in the prisoners who practiced yoga. They were confident that such yoga practices would be beneficial to prisoners in other prisons.

5. The utilized Herbs had been previously scientifically researched. Most studies used ethanolic or other types of extract. This study affirms the effect of *Swarasa*.
6. In previous studies, all herbal treatments were tested on animals made diabetic by injecting poisons. This is against animal rights. The present study sets an example for the scientific community: have the courage of using human subject for herbal research.