



Scope of
investigations

Chapter 3

Scope of investigation

Based on the literature survey, in the present study entitled “**Assessing the presence of Lactose Intolerance among Children, Adults and Elderly of Urban Vadodara and Evaluating the Impact of Supplementing Lactose Hydrolysed Milk on their Quality of Life and Nutritional Status**” following working hypothesis has been framed:

- 1) Null hypothesis
Hydrogen breath analyser will not be able to detect lactose intolerant subjects.
- 1) Alternative hypothesis
Hydrogen breath analyser can detect lactose intolerant subjects.
- 2) Null hypothesis
LHM supplementation for a period of 6 weeks to LI subjects will not cause improvement in BMI, QOL and nutrient intake.
- 2) Alternative hypothesis
LHM supplementation for a period of 6 weeks to LI subjects will bring about improvement in BMI, QOL and nutrient intake.
- 3) Null hypothesis
Recipes prepared from Lactose hydrolysed milk will not be accepted by the panellists for most of the organoleptic attributes.
- 3) Alternative hypothesis
Recipes prepared from lactose hydrolysed milk was accepted by the panellists for most of the organoleptic attributes.

To authenticate the above-mentioned hypothesis present study was conducted with the following objectives:

Phase I- Screening and Identification of Lactose Intolerant subjects

- 1) To determine the presence of lactose intolerance among children, adult and geriatric population.
- 2) To collect detailed information on gastrointestinal symptoms experienced due to consumption of various foods by means of semi-structured questionnaire.

- 3) To conduct Hydrogen Breath Analyser Test for selection of lactose intolerant (LI) subjects for supplementation of lactose hydrolyzed milk (LHM).

Phase II- Supplementation of Lactose intolerant subjects with Lactose hydrolysed milk (LHM)

- 1) To collect baseline information on BMI, dietary intake, Quality of life of the LI subjects.
- 2) To supplement lactose hydrolyzed milk (LHM) (250 ml) once daily for a period of six weeks to LI subjects.
- 3) To assess the impact of supplementation on BMI, dietary intake, Quality of life of the LI subjects at the end of intervention.

Phase III- Food Product development from Lactose hydrolysed milk and Standard milk

- 1) Selection of food products-
 - a) Rose milk b) cold cocoa c) white pasta d) veg au gratin e) kheer f) Sandesh
- 2) Standardization of the selected recipes
- 3) Sensory evaluation by semi-trained panel members.

Phase IV- Development of IEC material

To generate awareness, disseminate information and educate people about lactose intolerance and lactose hydrolysed milk.