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# Women's Perception of Hygiene and Sanitation in Rural Southern India

A Collaboration between the University of Pittsburgh Graduate School of Public Health, SHARE India, and Mediciti Hospital

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# Abstract


- In Andhra Pradesh, India despite high delivery rates within healthcare institutions and antenatal visits, the infant mortality rate (IMR) remains disproportionally high at 42 deaths per 1,000 live births. In order to further understand the social, ecological, financial, and environmental factors contributing to adverse health outcomes, convenience sampling was utilized to facilitate focus group discussions (FGDs) with six to ten mothers (ages 18-35) in six villages villages of Medchal Mandal. The FGDs explored mothers' home health and sanitation practices such as bathing, toileting, waste disposal, hand-washing, breast-feeding, menstrual health, cosleeping, and laundering. FGDs also began to explore the mothers' perception of the role their immediate interactive environment has on their health and the health of their families. It was hypothesized that the high IMR can be attributed to lack of clean water access and other sanitation resources such as proper latrines, showers, sinks, and waste disposal areas, along with antiseptic cleansers to compliment these behaviors. In addition, it is hypothesized that the high IMR can be linked to lack of awareness among the priority population concerning the benefits, consequences, and proper completion of hygienic behaviors. Themes of accessibility, awareness, seasonality, social support, stress, financial burden, and gender roles were identified as crucial determinants influencing the health-making decisions and mothers' home health behaviors related to the family. Further, upcoming data analyses will aid in identifying topics for future health behavior and health education interventions in the target population to address gaps in knowledge.

# Introduction

- **History**
  - India is historically identified as a country where childhood mortality is a perpetuating issue linked to social, economic, and environmental determinants of health status.
- **High Infant Mortality Rate**
  - Despite the majority of births occurring in healthcare institutions, with 96% of the Medchal Mandal population receiving three or more antenatal visits, the infant mortality rate (IMR) is disproportionally high at 42/1,000 live births.
- **Impact of Education on Family Health**
  - The health of the family depends on the mother's level of education.
  - India currently spends only two percent of government expenditures on health and three percent on education.
- **At Risk Communities: Medchal Mandal**
  - Women in the rural communities are particularly at risk.
  - "The proportion of infant deaths taking place in the project area within the first one month (<30days) is as high as 80.5%, with 61% occurring within the first week."

# Objectives

- Further understand the social, ecological, financial, and environmental factors contributing to adverse health outcomes.
- Identify women's perceived importance and purpose of health promotion behaviors and their current level of practice.
- Gain further contextual background for previously collected data from the Longitudinal Infant Family hEalth Study.
- Explore maternal and child health topics in an open-ended setting to establish a foundational framework for identifying future opportunities of interventions for health behavior and education.
- Assess mothers' understanding of the influence their immediate interactive environment has on their health and family health.

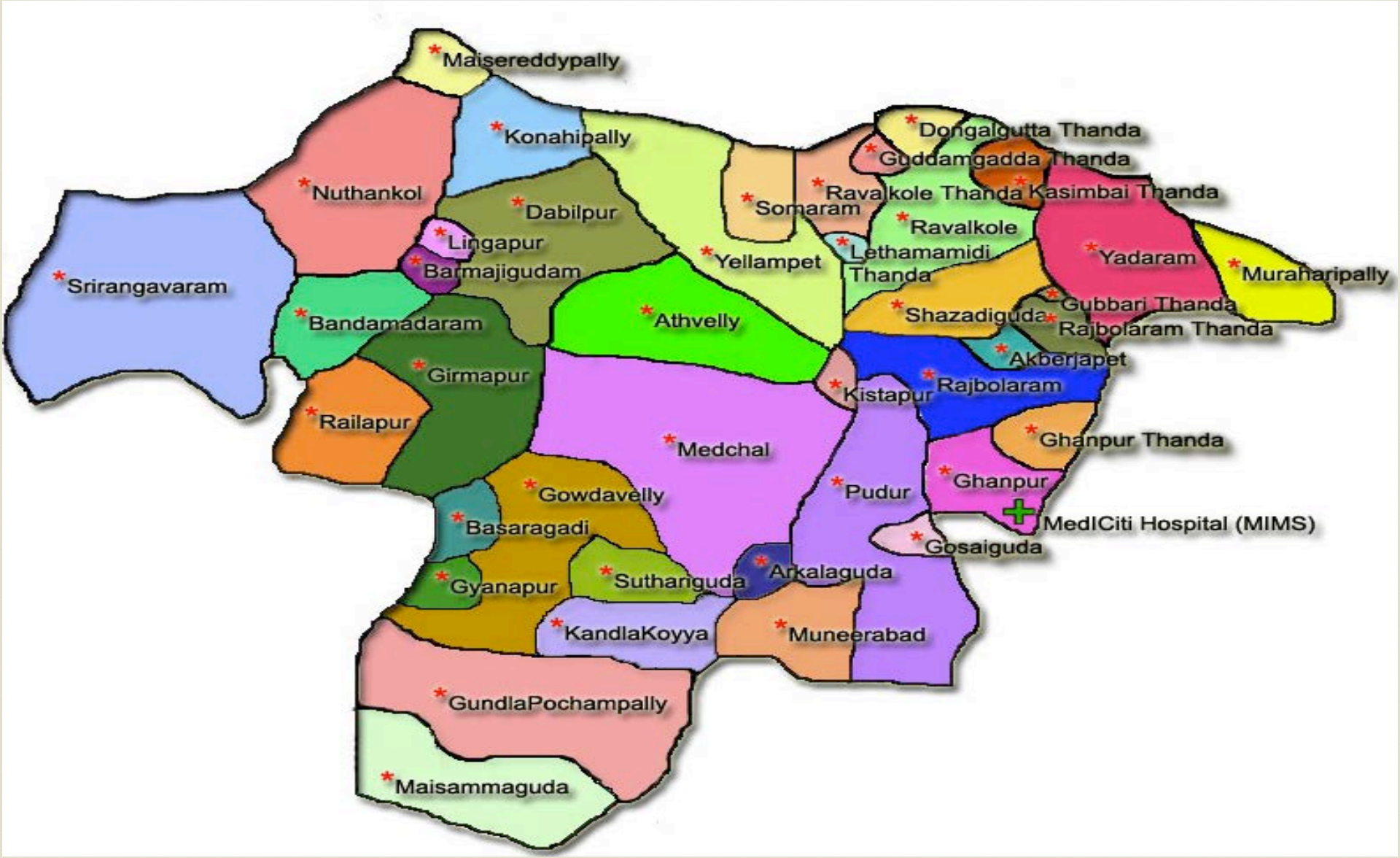
# Hypotheses

- Mothers' lacking awareness of effective health promotion behaviors and accessibility of basic health resources has contributed to the high indigenous infant mortality rate.
  - The high IMR is attributed to lack of clean water access and other sanitation resources, such as: proper latrines, showers, sinks, and waste disposal areas, along with antiseptic cleansers to compliment these behaviors.
  - In addition, the high IMR can also be linked to the priority population's lack of awareness concerning the benefits, consequences, and proper completion of hygienic behaviors.

# Research Questions

- For each FGD, the moderator, transcriptionist, and observer were present to disseminate and document the participants' responses to questions on the following topics:
  - Bathing
  - Toileting
  - Waste disposal
  - Hand washing
  - Breast-feeding
  - Menstrual health
  - Co-sleeping
  - Laundering

# Medchal Mandal



# Methods

- **Sampling**
  - Through convenience sampling, six villages were selected from the Medchal Mandal region
- **Participants**
  - Community Health Volunteers (CHV) recruited six to ten married women aged 18-35, to participate in six focus group discussions (FGDs) on home health practices
- **Justification of Target Population**
  - Mothers are responsible for taking care of their children's and family's health and sanitation needs
- **Research staff**
  - SHARE India staff members and an MPH student
- **Location**
  - Village's Gram Panchayat or Anganwadi center
- **Transcription and Translation**
  - FGDs conducted in the local language of Telugu, audiotaped and translated into English
- **Data Analysis**:
  - ATLAS TI Qualitative Data Analysis and Research Software
  - Concept-mapping
  - SPSS

# Theoretical Framework

| HEALTH BELIEF MODEL | |
|---|---|
| CONSTRUCT | SITUATIONAL EXAMPLE |
| Perceived Susceptibility | Fear of infectious tropical diseases such as Malaria, Dengue Fever |
| Perceived Barriers | Lack of monetary resources, transportation, geographic isolation from resources |
| Cues to Action | Areas of improvement recognized but lack of self-efficacy in controlling situation |

| SOCIAL COGNITIVE THEORY | |
|---|---|
| CONSTRUCT | SITUATIONAL EXAMPLE |
| Level of Knowledge | Awareness of health promotion behaviors (i.e. hand washing) |
| Behavioral Capability | Accessibility and affordability of clean water, soap and skills to complete hand washing process |
| Expectations | Understanding benefits of hand washing |
| Observational Learning | The behavior has been correctly modeled for future completion |

# Demographic Results

| FACTOR | MEAN | MEDIAN | MODE | RANGE |
|---|---|---|---|---|
| AGE | 24.43 | 24 | 23 | 18-35 (17) |
| AGE AT CURRENT MARRIAGE | 19.39 | 19 | 18 | 15-25 (10) |
| EDUCATION STATUS | 7.7 | 10 | 10 | 0-17 (17) |
| NUMBER OF CHILDREN | 1.67 | 2 | 1 | 1-4 (3) |
| NUMBER OF CHILDREN EVER BORN | 1.67 | 2 | 1 | 1-4 (3) |
| AGE OF YOUNGEST CHILD (IN MONTHS) | 10.66 | 9 | 11 | 2-57 (55) |

# Demographic Results

| DEMOGRAPHICS (n=61) | PERCENTAGE |
|---|---|
| WORK STATUS | |
| ❖ Housewives | 98.36 |
| ❖ A. Cooli (Farmer) | 1.64 |
| RELIGION | |
| ❖ Hindu | 88.52 |
| ❖ Muslim | 8.20 |
| ❖ Christian | 3.28 |
| FAMILY TYPE | |
| ❖ Joint | 57.38 |
| ❖ Nuclear | 42.62 |
| CASTE | |
| ❖ Scheduled Caste | 13.11 |
| ❖ Backwards Caste | 62.30 |
| ❖ Other Caste | 11.48 |
| ❖ Scheduled Tribe | 6.56 |
| ❖ Not Available | 6.56 |

# Discussion

- **<u>Themes Impacting Health-Making Decisions and Behaviors</u>**
  - Accessibility, awareness, seasonality, social support, stress, financial burden, and gender roles
  - Social support as a foundation to build further capacity and empower mothers in the communities in later studies
  - Barriers to achieving necessary changes in the village are related to perpetuating social inequities
  - Community members request further education on health topics to safeguard family and community health

*"We came to know that when four people have gathered at one place we can get some knowledge." –FGD Participant*

# Limitations

- Lack of ethnographic and demographic research on local population
- Bias of convenience sampling to recruit participants
- Absence of tribal population in population sample
- Participant Bias
  - Self-contradiction
  - Fear of labeling
- Linguistic barriers
- FGD Environment
  - Large group of women
  - Distracting presence of small children

*"Is this telecast in TV? If it comes everybody will see."-FGD Participant*

# Conclusions

- **Identify**
  - Topics for future health behavior interventions to address gaps in knowledge
- **Emphasize**
  - Teach new mothers evidence-based health practices for implementation in the home to improve their health and their children's health
- **Implement**
  - Health behavior and education interventions during pre-pregnancy, pregnancy, and throughout the child's first months of life
- **Efficacious Approaches**
  - Intervene one-on-one with participants to increase knowledge and self-efficacy, and demonstrate health promotion behaviors in appropriate situations
- **Partnering with Community**
  - Build trust and rapport to collaborate in delivering needs-based educational interventions to help community members address the high IMR and preserve the health of the family for future generations

*"If children are healthy, we feel happy."-FGD Participant*

# Global Health Implications

- Millennium Development Goal 4 (MDG4) focuses on reducing child mortality, especially in developing countries around the world
- India's progress in achieving MDG4 has been categorized as "off track"
  - India still exhibits a child mortality rate of 76/1,000 live births.
- Health awareness and education activities can be delivered to mothers to increase their self-efficacy to optimize health outcomes for their children.

*"It is not possible with one man, it is possible when everybody together."-FGD Participant*

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