CHAPTER 3: Methods and materials

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3.0 Introduction:

This chapter covers the methods undertaken and materials used for the study. Also it includes overview of the study design, aim and objectives of the study, research design, sample size, criteria of inclusion and exclusion, tools of the study, collection of data and definition of the related terms. The study has used multiple methods to address complex interrelationships between women's lives, including a participatory process, input from various other sectors and has identified critical parameters about women's experiences. The study examines the impact of health promotion undertaken by the existing health care delivery system, undertakes a secondary analysis of national statistical data on women's health and explores generational perspectives and cross-generational comparisons.

3.1 Overview of study design

The study perceives that motivating women in knowledge acquisition about their body-mind-health, particularly rural and slum dwellers who are at higher risk in comparison to urban and high class population, help to develop a healthy society. Cultural blind-believes, misleading by local quake, early marriage and a preference for sons, in addition to large family size are some of the main issues affecting women health.

3.1.1 Health indicators: it is proposed to develop and validate information seeking of women

- Cognitive and behavioral factors
- Household environment and based on various health education
- Socio-economic variables
- Therapy-seeking behavior
• Socio-cultural indicators
• Social exclusion
• Environment
• Health service
• Access to facilities and role of community workers and preventive activities.

3.1.2 **Information service indicators**: the study has proposed to strengthen and integrate information component into existing health delivery system, important indicators are:

- Misconception regarding availability of information resource
- Proactive to component of IEC for information service
- Effective communication, through accessible and available services to improve consumer outcomes
- Creative communication strategies using technology, such as the Internet, e-mail, can complement face-to-face team meetings at libraries. (Depends on infrastructure)
- Creating awareness among rural consumers and their families about resources and services
- Reduction in stigmatization in accessing services
- Encouraging sharing of information and misconception dispelled to optimize the benefit to the client.

**3.2 Aim of the study**

The study aimed at suggesting a suitable Women Health Information System (WHIS) model to provide choicest access to health information resources through various media and technology to improve quality of life of women and their families, thereby achieving a healthy society.
3.2.1 Philosophy of the study

Health and well being of women will determine the future well being of the country. Women Health Information Service (WHIS) promotes use of information and meaningful participation of women in various programs and activities that nurtures the mind, body and spirit of women.

3.3 Objectives of the study

1. To study existing services of health care delivery system at community contact point for women
2. To study the Knowledge Attitude and Practice (KAP) of women in seeking health information and that of their family members
3. To study the use of printed material in acquiring knowledge about health
4. To study the existing information resources like in popular magazines and other health education materials targeted at women.
5. To study effectiveness of printed reading material in improving knowledge about health
6. To suggest a suitable model “Integrated Women Health Information Service (IWHIS)".

3.4 Scope and Statistical Analysis

The scope of the study is limited to one PHC area, and women population in the age group of 15 - 45 years. The study has used inferential statistics for analysis. E-resources, have been excluded as the accessibility to Internet and the computers by the rural population (study area is poor almost nil in use)
3.5 Study Hypotheses

The study hypotheses are confined to the impact of health information service on women in attaining their health. Hypotheses of the study are:

1. The library/information system have not been considered as an active component to educate the community particularly women in the existing IEC service. (Health care delivery system)
2. Health workers at community contact level are lacking library and information support to update their knowledge and to educate community.
3. Information support (as reading material) can be more effective in acquiring knowledge and clarifying their doubts.
4. Information support (reading materials) for women helps to maintain anonymity in using information service.
5. Suitable and integrated (multi media) library/information system helps to reach the maximum people including rural and urban poor.

3.6 Variables of the study

The study variables are derived based on the issue like easy access to health care and service, good information service and resource, reaching maximum population in providing good awareness about health and strengthen and integration of health education

- Access
- Education
- Participation
- Information resources (various media)
- Information services (various channels)
- Information access
There are many mass media channels such as magazines, newspaper, radios and televisions providing information to the community. In addition posters are displayed at PHCs and other places, and pamphlets circulated to the community as a part of health education programme are provided for creating health awareness. Further, an individual can acquire information from doctor-patient interaction and with health educators/workers.

3.6.1 Location of the study

The study was conducted at a nursing home in Jigani, a village near Bangalore. The cases seen at the nursing home were Maternal and Child Health (MCH). A physician was available 24 hours, along with two nurses for in-patient and emergency. Main reasons for selecting the private nursing home at Jigani was that one doctor runs majority of the PHCs and two to three nurses with little facility for in-patient care. Hence, the data available at the clinic was comparable with the data maintained at the PHC. Therefore, the study was conducted at a private nursing home and added the attributes of PHC studied through their records.

Sample patients who visited the nursing home during the data collection period were also interviewed, particularly women, majority of whom were maternal care cases. Originally, the study was designed to obtain a sample size of 50 exit patients of the nursing home. Interviews were conducted with women and their spouses who had just completed either a physical examination or a counseling session with the physician.
3.6.2 Pilot Study

The pilot study of KAP analysis was undertaken on the health seeking behavior and information/knowledge acquisition pattern. In this context one needs to understand that behavior (of any sort) depends on their acceptability and accessibility to the service and related social factors rather than simply to decide to “going to the doctor”. There have been broad frameworks for looking at health seeking behavior, recognition of health needs, use of particular health facility, method to identify, approaches the facility and the choice of different kinds of health services. Each individual behavior is different considering various conditions and on different occasions such as recognition of particular systems, perception of the symptoms, threat of disease, extent to which symptoms disrupt family, work and other social activities. Besides individual decision depends on the availability of treatment resources, physical and psychological proximity, cost of taking action (including cost, time, money, effort, stigma, social distance, feeling of humiliation and the like) and beliefs in the efficiency of recommended health care.

Cultural factors are included in health behavior models and seem difficult targets for intervention but are important. Cultural factors may relate to belief about the potential efficacy of different forms of care including age, gender and class, particularly in relation to sources of advice about what symptoms mean and where to go for help. The interviews with physician revealed a tendency to discount the ideas and understandings of their patients about their illness even after the treatment. Once their suffering is over the patient will have the tendency to know more and not the spouse. Patients or the spouses, particularly the illiterate and slum dwellers are unable to express their symptoms and at times also conceal some information. Women are
not frank enough to disclose their pains and symptoms particularly with male doctors. This too has important implications for the study of health seeking behavior.

The objective of the pilot testing was to examine the results of the questionnaires (item wording, translation and mechanics) and understanding at the grass root level and to make data collection in a realistic setting.

General determinants such as social class, gender, resources, availability and organization of health services, etc. will affect health-seeking behavior within the population. In this context the study propose to design on effective information service linked to the strategy of how people make decisions about their health (considering family as a unit). The investigation of this study include interviews with those with and without problems to describe patterns of decisions and actions, in addition to general determinants, such as geographical, financial, accessibility of services and level of care provided.

It was also found that many women are embarrassed to discuss about their health problems due to lack of awareness which makes it more difficult to develop educational messages relevant to a wider population. Women expect intimate questions and examination and therefore avoid going to a doctor, which again intersects with factors such as the availability of local health care and cost.

Further, the study proposed integration based on a combination of patient characteristics and provider characteristics. Patient characteristics include socio-demographic factors, knowledge and skills, beliefs, attitudes, values (cultural norms, nature of informal networks, situational factors like childcare responsibilities, transport and time), and treatment. Whereas provider characteristics relay on data regarding socio-demographic factors, knowledge and skills, beliefs attitudes, values, and treatment services of the local population.
Health workers may not be associated with all types of women health problems, hence the dilemma of the women would be:

- Choosing appropriate health care service/providers from wide range of services
- Choose services between private and public

Factors influencing the choices of people are limited to perceived advantages, ease of access, influence among friends, age (older) and gender (female), key elements in the perceptions of risk in delaying care.

Health seeking behavior of women depends largely on interacting factors. This study, has undertaken with random samples, considering family as a unit using structured questionnaire about health. Survey questions concentrate more on efficient way of obtaining the information. The study need is to accomplish the suitable model for improvement of the dissemination of information, with a good understanding of major hindrance and utilization pattern such as facilities-location, cost, opening time, waiting time and staff attitudes.

The centrality of health seeking behavior can be seen in context of early recognition of women health problems, accessibility to health care facilities and compliance with effective treatment. Reducing the time between onset of health problems onset through improved accessibility of services and/or health education supported by suitable information resources.

Health behavior of women (in contrast to simply health seeking behavior) would be positive if they have better knowledge. Self-treatment or other methods is another aspect of health behavior, where women are suffering. The knowledge about health and health seeking behavior in relation to their health problems helps in making women participate in preparing a programme plan, identify obstacles to early
diagnosis, effective treatment and implement appropriate health education and information interventions. To mention some of the examples, some population may usually go to pharmacists and ask for help. Thus having identified this practice it may be possible to train private pharmacists in providing information or encourage them to guide people about the education/information sources available to them. Some women may not find it appropriate to discuss health matters with a male doctor in which case a female doctor or nurse can be identified and sought to discuss and find solutions. This type of assessment and help from various sectors assist to women acquire knowledge about their health problems.

Health seeking behavior is part of a wider concept of “health behavior”. Numerous studies have been responded on health behavior in general but there are a few studies found on women health behavior. To device a suitable health behavior model for women it is essential to understand the most successful study of general models of health behavior and examine the strength and weakness of the existing programme of health education particularly by the community health worker (specifically women health worker).

3.6.3 Data Collection

The study has used multiple methods of data collection and to obtain relevant information/quantitative estimates of key indicators. The following data collections were employed:

- KAP analysis of women in seeking health
- Abstraction of routinely collected service statistics at a PHC and a private nursing home, in Jigani near Bangalore
- Interviews with female patients (with their informed consent) in a private setting as they exit the nursing home at Jigani
• Educational material on peri-menopause was circulated to women (hospital based employees) and was tested their pre-reading awareness. The awareness gained out of reading of the literature provided to them was also considered.
• Content analysis of literature published in three Kannada popular magazines.
• Interview with women health workers at PHC, Jigani.

Data collection was carried out, few of them accompanied by health workers and discussed with the physician whenever MCH cases were available to provide antenatal, postpartum or child health services. Exit interviews were conducted with eligible and consenting clients who received those services at the nursing home and PHC sites. Service statistics on caseloads were abstracted. However it was noticed that routinely collected service statistics at PHC were not systematically recorded both at the PHCs and nursing home.

The assessment aimed at building up a picture of health seeking behavior, specifically the population covered in the study. The study also was undertaken a survey and interview of hospital-based non-medical administrative staff, quasi-experimental study providing literature to test their confidence and suitability of reading materials for learning about the health on their own by reading. Further content analysis of the Kannada literature published in Kannada Magazine were Sudha, Gruhashoba and Taranga was undertaken.

3.6.4 Rationale of the study

Information and education must be seen as means to empower women and to build the capacity in women to promote their own health and make best use of available resources. The impulse that exists in information and education program must move from top-down approaches. Further understanding of the participant would be more with participatory approaches whereby women’s voices are heard and
respected which form the basis for developing interaction. Providing information about health is only the first step. Building the capacity in women to use these information resources to improve their knowledge is even more critical. In this context Women Health Information System involves training of influential members of the community, (including men), by providing information to the selected at grass root level workers and training them to educate others in the community. This will enhance the self-image and confidence of the society as well as help to build a better-informed society, whereby integration can be achieved.

The strong positive correlation between education and health, as per review of literature on women’s education is critical to health. In addition, women’s education is emerging as a key element worldwide, for bringing about political, economic and social changes needed to achieve Health For All. Education built on the principles of equity without distinction of culture or social class must be accessible to all women.

“Information is key ingredient for education”

In a well-informed society, it is expected that women have the knowledge about

- Common health problems in the area
- Local names for the health problems
- Prevailing beliefs about their health approach
- Actions these people are known to take (or believed to take)
- People in the community likely to have knowledge about where to go for care

Further, based on the literature review, the study has taken note of the following issues, while developing the integrated system:

- Development of general perceptive to health. Social implications of being females are usually overlooked in the design of health care delivery system and strategies.
• Strengthening response to women health issues. Health system responses to women health issues span their life cycle from early childhood to old age.

• Focusing on those who most need. The focus need to be more on poor indigenous community, urban slum dwellers, and specific age groups and others are marginalized population.

• Forging partnership. Inter sectoral and multi-sectoral approach need to be established with sectors like education, information, labor, social welfare, legal as well as academician, researcher, professional association, and NGOs.

• Creating support to environment, to enhance political and social action, which includes social customs and processes and its effect on women health.

**Key Concepts of Information Service**

• Health needs of women: physical, social and spiritual

• National and state level actions in information services

• Major obstacles and constraints in achieving full equity for women in the fields of health development.

**Socio-economic demographic characteristics**

• The efficiency of the health information services for women and children is closely related to the status of women in society.

• Mother's health is the bulwark of her family; it is foundation for community and social program.

• In developing countries, women and children are extremely disadvantaged group as their needs for education and information services are neglected.
Study of existing health care delivery system

- State, District and community level administration machinery should spell out specific plans and technologies to be adopted to achieve better information services.

Indicators of Information empowerment of women

- Knowledge empowerment and awareness of women is the basic need for women’s advancement in all fields of endeavor.
- Information services should be need-based and specific on programme like nutrition and education for mothers and children.
- On site Information service at execution point like immunization camps would help to provide need-based information service and education.
- Multi-sectoral involvement will help to achieve better results in creating awareness about information service for women health.
- Suitable health information resources and services including usage/dissemination of training provided to periphery level health care and other related staff at grass root level will help in dealing with immediate health problems of mothers and children.
- Information services provided to the community leader will help percolate information among the local community.
- Women organizations to be involved in planning and implementation of information service for development of women and children.
- There is need for a National Information System, which includes public libraries, medical libraries, social welfare departments and mass media.

3.7 Definition of Terms

**Base line information:** facts and figures about the existing situation as per the published data

**Data:** includes survey of the present study and published data

**Focus group discussions:** discussions with a small geographic location representative group
Indicators: measurable makers of programme

Interventions: introduction of an activity or programme designed to bring about change

Interviews: direct questioning usually spoken with individuals or groups. Interview can be structured (follow a set pattern) or unstructured (a free ranging conversation)

Key informant: a person with extra information or special knowledge

Monitoring: continuous information collection and record keeping to assess how well a program or activity is working

Objective evaluation: analysis using standard tools and methods

Observation: carefully watching and noting what people do or say about the theme

Participating evaluations: involving local people and staff in monitoring and evaluating their own programme

Qualitative: descriptive information about ideas, beliefs and behavior of women

Quantitative: information based on number or statistics considered for the study

Questionnaires: written question sheets used to gather information from selected people

Sample: selected smaller group to represent a larger group, samples will be selected systematically (stratified)

Survey: systematic collection of information from many people

Variable: variations between various services groups or situations. The study outlining principles and process for an evaluation or other assignment including the reason for the evaluation, its purpose, scope, tasks of the evaluation addressed.

Media: Provide technical assistance to women’s NGOs in the strategic use of communication tools using messages and activities for effective outreach and advocacy.

Information Technology (IT): Increase the effectiveness of women’s NGOs technical capacity and support the use of information technology to advance women’s health and well-being.
Health: Strengthen the capacity of women’s NGOs to improve the health of women in their communities.

Information Sharing: Provided resources materials on health, communications strategy, advocacy, and development.

Networking: Provided linkages to regional and international partners and resources. Expand collaboration relationship among women’s NGO’s and supporting individuals and peer support organization in Africa and elsewhere.

3.8 Summation

The effective information can be achieved by combination of information and communication integrated into health services. The strategy of information service model is aimed at the broader goals of women’s empowerment and is helping to build a healthy society. The information service was also targeted to assists women’s organizations to use all forms of media to access, disseminate and communicate.

The study proposed to use all communication strategies, including traditional and mass media effectively and linking groups. It also offers a unique perspective to strengthening health care delivery system with its entire range of information and communication capacities. The participation of NGOs in implementing activities reinforces the services. The strategies that are found suitable during the pilot study are:

- To strengthen capacity building of decision-makers and health providers.
- To provide technical and organizational support to civil society particularly women’s groups, for use and sharing of information.
- To facilitate and consolidate inter-sectoral networks for better outreach of services.

The strategies also include language and culture specific support, community education, and develop skills for self-sufficiency. The services are proposed for
linking existing and new efforts at the community level. The model proposed in this study is aiming to bridging the information gap between people and providers, wherein information resources serve as a tool to bridge the gap between what input policy makers need and what community deem to learn. Further research is needed to define the basics of developing a large system of education materials, their distribution and community communication. Besides it is essential to conduct research to assess the gap of areas for out reach distribution of education materials.