

Nursing Audit of Health Workers Providing Health Services in Rural Area with Special Emphasis to Community Satisfaction in Satara District

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Abstract: *The current trend in healthcare delivery is to work towards providing 'people-centered', healthcare that puts the client at the center in the health delivery system. Objectives- To assess the quality of health services provided by health workers. To assess the job satisfaction of health workers and the level of community satisfaction with health services provided by health workers. To determine the association of selected sociodemographic variables and level of satisfaction of community. Approach -observational descriptive approach, Design- cross-sectional, descriptive survey design was used. Setting - Satara district. Study Subjects- consisted sub centers for evaluation of health services, health workers for job satisfaction and heads of families for community satisfaction. Sample Size Eleven sub centers. 104 health workers, 1200 heads of families selected by random sampling technique. Results Adequate facilities were available for rendering the health services at rural area. And due to availability of facilities health workers were giving grade A+ services to the community. Health workers (100%) were showed averagely satisfied with their present job. There was significant association between the age and sources of job satisfaction. More than half of the head of families (61.7%) felt that time that takes for to get treatment was reasonable had not waited long, Majority of the head of families (59.2%) reported that health workers were visited regularly. Most of respondents were (73.2%) agreed that services provided by health workers were relevant and as per the needs of community, while 74.3% responded services of government health workers were satisfactory. Majority 74.3% were agreed that services at the government health facility relevant to their needs and 74.9% were satisfied with the health facility. Heads of families 49.7% were averagely satisfied with availability of basic services. Conclusion -In the present study it was found that adequate facilities were available at sub centers as per Indian public health standard with grade A+ and grade A. Almost all Health Worker showed averagely satisfied with their present job. Community showed averagely satisfaction with services provided by the health workers in rural area thus further increase in satisfaction of clients would be possible by adequate drug supply, less waiting hours and transport facilities for emergencies.*

Keywords: Health Services, Community Satisfaction, Health Worker Satisfaction, Nursing Audit.

1. Introduction

Over the years, India has gradually established the vast public health infrastructure in the country which currently includes 148124 Sub-centres, 23236 Primary Health Centres and 3910 Community Health Centres providing health services to 72.2% of the country's population living in rural areas. In Maharashtra public health infrastructure currently includes 10580 Sub-centers, and 1809 primary health Centers[1]. Of the total population of Maharashtra state, around 54.78 percent live in the villages of rural areas. In actual numbers, males and females were 31,539,034 and 30,017,040 respectively. Total population of rural areas of Maharashtra state was 61,556,074. The population growth rate recorded for this decade (2001-2011) was 54.78%. In rural regions of Maharashtra state, female sex ratio per 1000 males was 952 while same for the child (0-6 age) was 890 girls per 1000 boys. In Maharashtra, 7,688,954 children (0-6) live in rural areas. Child population forms 12.49 percent of total rural population. In rural areas of Maharashtra, literacy rate for males and female stood at 85.15 % and 64.80 %. Average literacy rate in Maharashtra for rural areas was 77.01 percent. Total literates in rural areas were 41,482,761[2]. Although the numbers look impressive their functional status need to be improved in terms of physical infrastructure, manpower, equipment, drugs and other

logistic supply etc. that are very much needed for ensuring quality services.

The Sub-centers are vital peripheral institutions for providing of primary health care to the people and play an important role in the implementation of various health & family welfare programs at the grass-root level. In the public sector, a Sub-health Centre (Sub-centre) is the most peripheral and first contact point between the primary health care system and the community. As per the population norms, one Sub-centre is established for every 5000 population in plain areas and for every 3000 population in hilly/tribal/desert areas. It is the lowest rung of a three-tier set up consisting of the Sub-centre established for every 3000-5000 population with referral linkage to the Primary Health Centre (PHC) for 20,000 - 30,000 population, and the Community Health Centre (CHC) for 80,000 to 1,20,000 population[3].

A Sub-centre provides interface with the community at the grass-root level, providing all the primary health care services. Of particular importance are the packages of services such as immunization, antenatal, natal and postnatal care, prevention of malnutrition and common childhood diseases, family planning services and counseling. They also provide elementary drugs for minor ailments such as ARI, diarrhea, fever, worm infestation etc. and carryout community needs assessment. Besides the above, the

government implements several national health and family welfare programmes which again are delivered through these frontline workers. Currently a Sub-centre is staffed by one Female Health Worker commonly known as Auxiliary Nurse Midwife (ANM) and one Male Health Worker commonly known as Multi Purpose Worker (Male). One Health Assistant (Female) commonly known as Lady Health Visitor (LHV) and one Health Assistant (Male) located at the PHC level are entrusted with the task of supervision of all the Sub centers (generally six sub centers) under a PHC. The Ministry of Health & FW, GOI provides assistance to all the Sub-centres in the country since April 2002 in the form of salary of ANMs and LHVs, rent (if located in a rented building) and contingency, in addition to drugs and equipment kits.

The current trend in healthcare delivery is to work towards providing 'people-centered', healthcare that puts the client at the center in the health delivery system. This means that clients' views and assessment of services provided are critical in providing feedback for improving the quality of care provided [4]. Client satisfaction with health services, therefore, has become one of the important components of providing accepted quality of care.

The word audit comes from the Latin word 'audire' meaning to hear. However, the term can be best explained by the word audit of the English language, which has the sense to examine, correct and certify. Thus, the audit is the systematic assessment and a formal activity to determine whether it is being done according to your goals. It is a branch of accounting that has been used by various professions, including nursing due to globalization and given the need for companies to add up to the auditor to audit medical nursing, considering their general function⁵. In health organizations, auditing is configured as an important tool in the transformation of work processes that are occurring in hospitals and health plans, which are seeking to restructure to maintain the quality of care provided while ensuring a competitive position in the labor market. In this context, the nursing audit can be defined as "the systematic assessment of the quality of nursing care, verified through the nursing notes in the patient's and / or the conditions of our own"[5].

The importance of the community's perspective on quality of care has been analyzed mainly in three components. These are managerial, professional and client based. The earliest surveys largely were managerial and focused on subjects that managers might have felt more competent to tackle, such as the quality of catering and physical amenities provided for inpatient and accessibility of health care. Managerial quality has been measured in terms of cost-effectiveness use of resources. Professional dimension of care has been measured by the extent to which set standards of care, such as nursing standards are compiled with.

Satisfaction has been said to be a major predictor of use of services, as it is essential if clients were to utilize services, comply with treatments and maintain a continuing relationship with practitioners [6]. Following this thinking, there has been growing interest in measuring clients' satisfaction, mostly through collecting the views of service users. These views have become important in the evaluation of healthcare delivery and have become a tool for health

service performance evaluation. Client satisfaction is now viewed as an important measure of protection against potential problems in healthcare delivery, and is linked to changes in service delivery policies [7, 8, 9, 10].

From the point of view of employees, job satisfaction may reflect benefits that people might be looking for when they take the job; these benefits are usually determined by the employer based on their strategy to be profitable and competitive in recruiting and retaining people. On the other hand job-related factors that affect satisfaction relate to employees' desire to use their skills and abilities to make a meaningful contribution and to be valued. From an organization's point of view, they employ people to perform specific tasks in order to achieve their business goals. When organizations finds people who fit their job requirements and are happy with what is being offered, then a win-win situation is created between the employer and the employee.

Satisfied employees tend to be more productive and committed to their jobs [11]. In a healthcare setting, employee satisfaction has been found to be positively related to quality of service and patient satisfaction [12]. Employees can directly influence patient satisfaction in that their involvement and interaction with patients plays a significant role in quality perception.

Herzberg and Mausner suggested a motivation-hygiene theory where factors influencing job satisfaction are separate from those that lead to job dissatisfaction [13]. Factors leading to satisfaction describes as motivators, were promotional and personal growth opportunities, responsibility, achievement and recognition. These are factors that are intrinsically rewarding to the individual. Extrinsic factors, described as "hygiene" factors, leading to job dissatisfaction include pay, physical working conditions, job security, company policies, quality of supervision and relationship with others [14].

When measuring patient/client satisfaction, a number of important factors that may influence satisfaction should be considered, namely literacy levels, intellectual and physical/sensory levels and difficulties with language proficiency or ethnic and cultural diversity [15]. Factors such as age of respondents is important; older ones generally with lower expectations for health care tend to record higher satisfaction than young ones [16, 17, 18]. The patient/client-professional provider relationship, including information and technical competence is core to satisfaction and where patients have had opportunity to choose a service provider, their satisfaction has been higher than when no choice was. Prior experience of satisfaction in a health care setting has been linked to higher satisfaction scores. Social elements within society are also important as these dictate whether the user can give feedback and express their satisfaction or not, e.g., gender, socio-economic (education and financial status), urban/rural setting and nature and severity of illness (acute, chronic, psychological) [15].

2. Justification for Study

The nursing audit has been meeting the needs of healthcare institutions in controlling the factors causing costly processes. At the hospital, for example, nursing is the most

user consumables and must have attention to the costs involved in the care process in order to ensure the adequacy of the provision and use of materials, and especially the quality of nursing care [19]. With a focus on quality care and increased competitiveness among organizations providing health services, more opportunities arise for nursing professionals work in the field of auditing hospital bills. Thus, the audit is configured as a management tool used by health professionals, especially nurses, in order to assess the quality of nursing care and the costs of providing such activity [20]. In order to provide Quality Care in these Sub-centres, Indian Public Health Standards (IPHS) are being prescribed to provide basic primary health care services to the community and achieve and maintain an acceptable standard of quality of care [21]. These standards would help monitor and improve functioning of the sub-centre. Setting standards is a dynamic process. Currently the IPHS for Sub-centres has been prepared keeping in view the resources available with respect to functional requirement for Sub-centres with minimum standards, such as building, manpower, instruments and equipments, drugs and other facilities etc.

Community satisfaction is core to quality of health care; even the most technically competent care is meaningless if it does not satisfy the community. In general satisfaction influences whether a person seeks medical advice, complies with treatment and maintains a continuing relationship with practitioners [5]. There is generally a slow uptake of community satisfaction in the developing world, and in particular countries like India where a big imbalance of power between providers and users of health services still exists. Understanding, documenting and raising awareness with users on satisfaction and its dimensions would redress this imbalance and bring providers accountable to clients. As a country, India is still grappling with how to improve utilization of health services that could lead to improvements of health status. Improved quality of care remains a major aspiration and clients' satisfaction is one of its indicators for measuring quality of services delivered.

Health care workers all over the world are facing difficult challenges. The public's expectation of them continues to rise. Yet as a result of fiscal constraints, often created by worsening economic conditions, they are asked to provide more, higher quality health services with fewer resources. At the same time, the knowledge and skills-base needed to perform effectively in their chosen fields of endeavor continues to grow and change rapidly. Health care personnel will continue in the workforce for many years, while the information that they acquired during their education may rapidly become obsolete. Health care institutions and their managers are also confronted with these realities. The challenge is to continue to maintain or improve the quality of the care provided and maintain, or even expand, the comprehensiveness of health service coverage, while introducing changes in care delivery or service mix necessitated by reduced budgets. Finally, governments at local, regional and national levels are attempting to obtain greater value for the money they spend on health care. Faced with growing expectations of quality, they are being asked to be more accountable for the results of their health care expenditures. There is a felt need for quality management and quality assurance procedure in health care delivery

system at all levels so as to make it more effective, affordable and accountable. Therefore present study 'Nursing audit of health workers providing health services in rural area with special emphasis to community satisfaction in Satara district' was undertaken.

3. Aims and Objectives

3.1 Aim

To evaluate the health services provided by health workers in Satara district.

3.2 Objectives

1. To assess the quality of health services provided by health workers in rural area of Satara district.
2. To assess the job satisfaction of health workers in rural area of Satara district.
3. To assess the level of community satisfaction with health services provided by health workers in rural area of Satara district.
4. To determine the association of selected sociodemographic variables and level of satisfaction of community with health services provided by health workers in rural area of Satara district.

4. Material and Methods

The study aimed at to evaluate the health services provided by health workers with special emphasis to community satisfaction in rural area of Satara district. And also determine the association of selected demographic variables of with health services provided by health workers in rural area.

The Study Was Conducted In Three Phases,

- **Phase I** Included assessing the quality of health services provided by health workers, through quality assessment check list [21].
- **Phase II** Included the assessment of job satisfaction of health workers through job assessment scale [22].
- **Phase III** Included the assessment of community satisfaction through structured questionnaire which was validates by experts and tested for validity and reliability beforehand.

4.1 Research Approach

The research method adopted for the present study was observational descriptive approach because the present study was aimed at evaluation the health services provided by health workers in rural area of Satara district. This approach would help the investigator to evaluate the health services provided by health workers, job satisfaction of health workers and community satisfaction with health services provided by health workers in rural area of Satara district.

4.2 Research Design

In the present study, the investigator had selected cross-sectional, descriptive survey design was used in randomly

selected sub centers of Satara district, one PHC from each talukas was randomly selected viz representing the district Kudal (Jaoli), Kole(Karad), Shirval (Khandala), Pusesavali (Khatav), Rahimatpur (Koregaon), Pachgani (Mahabaleshwar), Mhasawad (Man),Kalgaoon (Patan),Barad (Phaltan), Nagthane (Satara), And, Kavathe (Wai).

One sub center from each primary health center was randomly selected viz Dapawadi (Kudal), Kole1(Kole), Atit (Shirval), Rajachekurle (Pusesavali), Dhamaner (Rahimatpur), Bhilar (Pachgani), Bhataki (Mhasawad), Kalgaoon (Kalgaoon) , Gunaware (Barad), Kashil (Nagthane) And, Bopegaon (Kavathe) [1] . All heads of families in 10% of total population selected randomly under each subcenter were the study subjects for the study of community satisfaction.

4.3 Setting of the Study

Satara district occupies a total geographical area of 10, 484 sq. km. Satara district is divided into 11 Tehsils and 11 Panchayat Samitis namely Satara, Karad, Wai, Mahabaleshwar, Phaltan, Man, Khatav, Koregaon, Patan, Jaoli and Khandala. There are 8 Nagar Palikas (Municipalities) in Satara that include Satara, Karad, Wai, Mahabaleshwar, Panchgani, Rahimatpur, Phaltan and Mhaswad. [1]

4.4 Satara District Health care facilities

The district is served by 1 district general hospital, 2 sub-district hospitals, 15 community health centres (CHC)/rural hospitals (RH), 71 primary health centres (PHC), and 400 sub-centres.

4.5 Study Subjects

According to Talbot, A population is a group whose members possess specific attributes that the researcher is interested in studying.' The requirement of defining the population for a research project arises from the need to specify the group to which the result of the study can be generalized. In this study, the population consisted sub centers for evaluation of health services, health workers and heads of families from selected sub center.

4.6 Sample Size

Eleven sub centers were selected randomly one from each primary health center from each of taluka to assess the quality of health services provided by health workers. The calculated sample size was 100 so all health workers (104) working in selected primary health centers were included in the study. Sample size for population survey to study community satisfaction in population is 10 percentages in 95% confidences interval so that true proportion in the entire population will fall within the confidence interval calculated from the sample. The calculated sample size using EPI INFO population survey was 94 per sub center [23]. Thus 1200 heads of families from eleven sub centers were randomly selected to assess the community satisfaction with health services provided by health workers at sub center.

4.7 Sampling Technique

A simple random sampling technique was used. In this technique, all heads of families residing sub center in jurisdiction of selected PHC had an equal chance of being selected for the study. Using the register of the people registered in sub center, more than 100 were selected at each sub center and was paid personal visit by investigator with structured community satisfaction questionnaires. The sub samples of the study i.e. Health workers administered job satisfaction questionnaires and 30 minutes were given to answer the questionnaire. A document review of sub centre's records (register book) was checked and observations were noted in prescribed format.

5. Criteria for Sample Selection

5.1 Inclusion Criteria

1. The health workers who are permanent employee of health department.
2. The health workers who were willing to participate in the study.
3. The heads of family above the age of 18 years were included.

5.2 Exclusion Criteria

1. The health workers who are temporary appointed on contract basis.
2. The health workers who got promotional training.

6. Data Collection Tool

The present study is aimed at evaluating the health services provided by health workers in rural areas with special emphasis to community satisfaction and job satisfaction of health workers.

6.1 Quality Assessment

Quality assessment check list was used for assessment of quality of health services provided by health workers. This check list was standardized by government of Maharashtra and utilized by district quality assurance group visit. Quality assessment check list consist of two sections I- Providers availability and general facility readiness, essential protocol and job aids, infection prevention practices and availability of equipment and supplies. Section-II Family planning quality assessment, maternal health quality assessment, child health/immunization quality assessment.

Scoring had been given as per IPHS guideline²¹.

Grade- A+ =90% and above.

Grade- A=76-90%

Grade B=51-75%

Grade C=26-50%

Grade D=up to 25%.

6.2 Job Satisfaction

A structured self-administered questionnaire was used to collect data from the participants. It consists of two sections.

Section A comprised the socio-demographic characteristics consisting of five items, while Section B was adapted from manual of Minnesota satisfaction questionnaire²².

6.3 Community satisfaction with health services provided by health workers

It consists of two sections. Section A comprised the socio-demographic characteristics consisting of twelve items, while Section B It consisted 2 items *Community Responses regarding health services* statements, Section C- *Community Responses regarding health services*, Section D-Reasons of Community for Using PHC Services and Section E-Level of community satisfaction of 16 community satisfaction statements measured on a three-point Likert scale ('not satisfied', 'satisfied to some extent' and to 'satisfied to large extend'). The value of three was given to the highest level of satisfaction (satisfied to large extend') and the value of one to the lowest level of satisfaction (not satisfied'). The values were then recoded as follows: 'not satisfied' the value of one,' and 'satisfied to some extend'" were given value of two and satisfied to large extend' value of three. The value of one was given to a;

Score of <26 = not satisfied,
Score of 27-37 = satisfied to some extent,
Score of 38-48 = satisfied to large extent.

6.4 Content Validity

To ensure content validity of the tool it was submitted to 20 experts who were doctors from medical department, Psychologist, Psychiatrist educationist, statistician and were faculty members of different college of nursing and was a specialist. And 15 tools received back from experts. The experts were selected on the basis of their clinical / teaching experience and interest in the problem and suggestions of the items on the tool. On common agreement a few additions and deletions were made in the tools.

6.5 Reliability

After establishing the validity of the tool to be used for the study, the final tool was made and then the reliability of the tool was done.

Quantitative researchers use several criteria to assess the quality of a study, and one of the most important criteria, among that was reliability, which refers to the accuracy and consistency of information obtained in a study. In this study, it is said to be reliable if the co-efficient is more than 0.8. The reliability of the observation checklist was determined by inter rater method. Cronbach Alpha was used for reliability. Cronbach Alpha measures how well a set of items (or variables) measures a one-dimensional latent construct. Cronbach Alpha is not a statistical test; it is a coefficient of reliability (or consistency). Formula for standardized Cronbach Alpha is $\text{Alpha} = (N \cdot r) / [1 + (N-1) \cdot r]$. It was widely used reliability index that estimates the internal consistency or homogeneity of a measure composed of several subparts; also referred as coefficient alpha. If alpha is greater than 0.8, it is considered "acceptable" in most social research situations.

6.6 Ethical Considerations

Ethical clearance and approval to conduct this research was obtained from the Research Ethics Krishna Institute of Medical Sciences Deemed University, Karad. Permission to conduct the study was also requested from the District Health Officer Satara. The ethical considerations took into account the personal and revealing nature of the study, which required that voluntary, informed consent, using the consent form designed for this study, needed to be obtained from the participants. Prior to administering the questionnaires, the aims and objectives of the study were clearly explained to the participants and written informed consent was obtained. Confidentiality and anonymity were ensured throughout the execution of the study as participants were not required to disclose personal information on the questionnaire. Provisions were made to have participants' concerns relating to the study addressed and misconceptions corrected. Participants were informed that their participation was voluntary and that they could withdraw from the study at any time if they wished to do so.

6.7 Pilot Study

A pilot study was conducted from, to assess the Feasibility of the study and to decide the plan for data analysis. Prior administrative permission was obtained from medical officer primary health center Umbraj. A sample of 14 Health workers for job satisfaction and 100 heads of family from sub center Talbeed. And one sub center Talbeed under Primary Health center Umbraj for assessment of quality of health services. The investigator approached the sample individually, discussed the objective of study and obtained consent for participation in study. Pilot study report showed that grade A services were provided by the health workers. Communities were averagely satisfied with health services provided by health workers and health workers were averagely satisfied with their job.

6.8 Procedure for Data Collection

A data extraction tool was used for scoring information regarding facility available at sub center and health services at the sub center. The register book records were used at using the data extraction tool to obtain the information to assess the quality of health services provided by health workers in rural area of Satara district. Firstly, a self administered questionnaire was used for collection of quantitative data. The questionnaire was divided into two sections: the demographic data and job satisfaction to assess the job satisfaction of health workers. Structured interview questionnaires were conducted randomly to heads of families who utilized the health services. The sub center covered ± 5000 people and ± 100 head of families (10%) were interviewed with structured questionnaires to assess the community satisfaction towards health services provided by health workers.

6.9 Data analysis

Descriptive statistics were used to analyze the data in this study. The analysis was based on completed questionnaires and extracted data emanating from records at the eleven sub centers. Data were imported into licensed copy of SPSS

version 20 software. Analysis included frequency distributions of different types of facility available and health services provided by the health workers, level of job satisfaction among health workers and community satisfaction demonstrated by pie charts, bar charts and tables.

7. Results and Discussion

7.1 Quality assessment of health services provided by the health workers

A total of eleven primary health centers were randomly selected and one sub center from each primary health center was randomly selected for quality assessment. Seven sub-centers were in grade A and four sub centers were in grade B in regards to Facilities readiness, location, condition, essential amenities were received grade. All (100%) sub centers had grade- A+ for the protocols and job aids. All (100%) sub centers were having grade- C regarding infection prevention practices while Availability of equipment and supplies found in grade- A with ten sub centers (90.9%). It proved that facilities were available for rendering the health services at rural area of satara districts. For services from the health centers of family planning and maternal health ten (90%) were in grade A while all sub centers (100%) were in grade A+ in regards to the child health and immunization and initiatives under NRHM. We strongly conclude that due to availability of facilities health workers were giving grade A+ services to the community.

In order to provide Quality Care in these Sub-centres, Indian Public Health Standards (IPHS) are being prescribed to provide basic primary health care services to the community and achieve and maintain an acceptable standard of quality of care. These standards would help monitor and improve functioning of the sub-centre. Setting standards is a dynamic process. Currently the IPHS for Sub-centres has been prepared keeping in view the resources available with respect to functional requirement for Sub-centres with minimum standards, such as building, manpower, instruments and equipments, drugs and other facilities etc. All "Assured Services" as envisaged in the Sub-centres should be available, which includes routine, preventive, promotive, few curative and referral services in addition to all the national health programmes as applicable. A list of equipment, furniture and drugs needed for providing the assured services at the Sub-centres has been incorporated in the document. A Model Citizen's Charter for appropriate information to the beneficiaries, grievance redressal and constitution of Village Health and Sanitation Committee for better management and improvement of Sub-centres services with involvement of PRI have also been made as a part of the Indian Public Health Standards²¹.

7.2 Job satisfaction of health workers

A random sample of 104 participants was selected from randomly selected sub centers of primary health centers. Data collection was completed through a demographic data form and a modified Minnesota Satisfaction Questionnaire. A total of 104 respondents participated in the study. Majority (53.8%) of the participants were females and 46.2% were males. The minimum age of respondents was 20 years and the maximum age 54 years. Most respondents were between

the ages of 41 and 50 years (56.7%), between the ages of 31-40 years were 30.8%, between the ages of 20-30 years were 6.7% and 5.8% were above the ages of 50 years. Most (99%) of the respondents were married. The study showed that majority of the respondents (56.7%) had a 11 to 15 years of work experience, (8.7%) had a less than 5 years of work experience, (28.8%) had a 6 to 10 years of work experience and (5.8%) had more than 15 years of work experience at primary health center and sub center. Majority 51.9% of health workers had one child, 20.2% had two children, 26-9% had three children to number of children, 1% of them no child.

The modified version of the Minnesota Satisfaction Questionnaire (MSQ) was used to measure job satisfaction among health workers. All respondents (100%) were showed averagely satisfied with their present job. Respondents expressed highly satisfaction with (59.6%) activity, (81.7%) advancement, (62.5%) Authority (100%) Compensation, (74%) Co-Workers, (100%) Independence (97.1%) Security, (100%) Social Service (100%) Supervision-human relations and (100%) Supervisors and Working Conditions.

Most job satisfaction studies evaluate numerous factors that may contribute to one's affective appraisal of their work. These studies typically look at both the intrinsic features of a job (e.g. recognition, advancement, and responsibility) and the extrinsic variables (e.g. salary, supervision, and working conditions). In school psychology, being able to perform a social service, being independent, performing a job that does not challenge one's moral values, being able to stay active, and feeling accepted and appreciated by one's co-workers have been associated with higher levels of job satisfaction. The same holds true for the current study,

7.3 Job satisfaction and age

There was significant association between the age and sources of job satisfaction. i.e. Ability Utilization, Achievement, Activity, Advancement, Authority, System policies and practices, and Co-Workers, Creativity, Moral Values, Recognition and Responsibility. The results indicated that differences exist between the levels job satisfaction and age, indicating that employees in the age group older than 55 experiences higher levels of job satisfaction. The majority of studies on the relationship of age and job satisfaction have found some association between job satisfaction and age. Some authors suggest that job satisfaction is U-shaped in age, with higher levels of morale among young workers, but that this declines after the novelty of employment wears off and boredom with the job sets in. Satisfaction rises again later in life as workers become accustomed to their role. This specific U-shape is confirmed in this study as far as extrinsic job satisfaction is concerned²⁵.

7.4 Job satisfaction and gender

There is significant relationship between the gender and sources of job satisfaction. i.e. Activity, Advancement, Authority, System policies and practices Co-Workers, Recognition - and Responsibility. Despite the fact that gender showed no significant relationship to the source of job satisfaction i.e. Ability Utilization, Achievement,

Creativity, Moral Values, and Security. In recent years South Africa has experienced a political transition to a democratic society which is based on freedom and equality as pronounced in the constitution. Historically, women have experienced many different levels of gender oppression and inequality in South African society. In a study conducted in the academic profession, no differences were found between males and females in terms of their experience of job satisfaction²⁴. The results in this study also confirmed those results. In other words, male employees do not experience practically significant higher levels of extrinsic and intrinsic job satisfaction compared to female employees. A reason for this could be that both males and females work under the same circumstances and there is no discrimination in terms of salary or benefits.

7.5 Job satisfaction and working experience

There was significant association between the working experience and sources of job satisfaction, i.e. Ability Utilization, Achievement, Activity, Advancement, Authority, and System policies and practices, Co-Workers, Creativity, Moral Values, Recognition, Responsibility, and Security.

7.6 Job satisfaction and Marital Status

In the present study found that there was significant association between the marital status and determinants of job satisfaction. i.e. Achievement. Despite the fact that marital status showed no significant relationship to the source of job satisfaction i.e. Ability Utilization, Activity, Advancement, Authority and System policies and practices, Co-Workers, Creativity, Moral Values, Recognition, Responsibility, Security.

7.7 Job satisfaction and number of children

There is significant association between the number of children and sources of job satisfaction. i.e. Ability Utilization, Achievement, Activity, Advancement, Authority, and System policies and practices, Co-Workers, Creativity, Moral Values, Recognition, Responsibility, and Security.

7.8 Community satisfaction in context to health services provided by health workers in rural area.

A total of 1200 heads of families were interviewed to capture their satisfaction with health services provided by health workers. All respondents were interviewed at home. Most of the respondents 64.3% of male, 35.7% were females and 16.4% of them were in the age group of 18-27 years, 27.6% of them were in 28-37 years age, 23.3% were in age group 38-57 years, 19.2% were in 48-57 years and 13.6% of them were above 57 years of age. Majority 62.9% were Hindu and 21.3% of them were Muslims, 9.6% were christen, and 6.2% were other caste. Majority 20.4% of them were educated graduate and above, 12.3% were had no formal education (illiterate), 14.3% had primary, 14.8% were educated up to - 8th standard 18.7% up to matriculation and 19.6% were educated up to higher secondary.

The main occupation by which respondent earned their living was used as proxy for the economic status of respondent. Majority 22.2% were salaried, 6.2% were unskilled

worker, 17.4% were agriculture, 18.2% business, 6.7% unemployed, 6.5% were retired (13.1%) of housewife and 1% others. Housing and sanitation 37.8% was good, 28.5% had poor and 33.8% had better. Majority 29.6% of them were in monthly income between 2501-5000, 23.6% were between Rs.5001-7500, 18.9% were in between 7501-10000, and 12.3% were between 10001-15000 while only 4.4% of them were income more than 15000.

More than half of the head of families (61.7%) felt that time that takes for to get treatment was reasonable had not waited long, but (38.3%) of them were felt the time that takes for to get the treatment takes very long. Majority of the head of families (59.2%) reported that health workers were visited regularly while 40.8% were reported health workers were visited once in a while. Formal education, age and economic status are important factors of satisfaction. Formal education is an important determinant for satisfaction. It influences what people's understanding of what they can expect from health centers, influences the level of appreciation of the services provided and it may create confidence in the service users to ask questions about the treatment they receive. Education is closely associated with income that increases affordability and satisfaction of most services. Age is also an important factor in satisfaction because the expectations of the older people are generally lower.

Most of respondents were (73.2%) agreed that services provided by health workers were relevant and as per the needs of community, while 74.3% responded services of government health workers were satisfactory. Majority 74.3% were agreed that services at the government health facility relevant to their needs and 74.9% were satisfied with the health facility. Many providers concurred, noting that the majority 74.6% of private health facilities are far away from the rural area. Majority of respondents agreed that private services were not reliable. Other hand majority 80.6% of heads of families said that private services are costly. 78.9% were responded that private consulting fee high while 67.3% were agreed that private test charges high and 64.4% of heads of families had experienced that private drug prescription of outside medicines.

Majority 85.4% of study subjects were averagely satisfied on with services provided by health workers was, 12% of exiting heads of families expressing high satisfaction, and 2.6% were not satisfied. More than half of the heads of families were (53.4%) were averagely satisfied with skills of doctors at sub center 52.7% of them were averagely satisfied with dedication of doctors. While more than half of heads of families 54.7% were averagely satisfied with skill of health team members and 51.8% responded averagely satisfied with dedication of health team members. Half of the heads of families 51.9% were averagely satisfied with quality of facilities and 29% were having high satisfaction regarding quality of facilities while only 19.1% were having low satisfaction regarding quality of facilities. Majority 53.1% the heads of families were averagely satisfied with functioning of facilities where 28.8% were having high satisfaction regarding functioning of facilities while only 18.2% were having low satisfaction regarding functioning of facilities.

7.9 Overall satisfaction with health services provided by health workers

Exiting heads of families were interviewed to assess their level of satisfaction. 49.7% of them were averagely satisfied with availability of basic services, 30% of them were highly satisfied with availability of basic services and 19.7% of them were low satisfied with availability of basic services.

7.10 Factors contributing for satisfaction with health services provided by health workers

Majority 53% heads of families had satisfaction with timing of service was average, 28.8% heads of families had high satisfaction. And 18.5% of them were low satisfied with timing of service. Majority 53% heads of families had satisfaction with quick counter were averagely, 28.6% heads of families had high satisfaction. And 18.4% of them were low satisfied with quick counter services. Half of the heads of families 50% had satisfaction with Infrequency of outside medicines were averagely, 30% heads of families had high satisfaction. And 19.4% of them were low satisfied with Infrequency of outside medicines. More than half 53.5% heads of families had satisfaction with Non-costly outside medicines were averagely, 28 % heads of families had high satisfaction and 18.6% of them were low satisfied with Non-costly outside medicines services.

Majority 52.9% heads of families had satisfaction with Free medicines from doctors were averagely, 28 % heads of families had high satisfaction. And 18.5% of them were low satisfied with free medicines from doctors. Majority 52.4% heads of families had satisfaction with Punctuality of doctors and staffs were averagely, 29.3 % heads of families had high satisfaction. And 18.3% of them were low satisfied with Punctuality of doctors and staffs. Majority 52.8% heads of families had satisfaction with Village health education by doctors and staffs were averagely, 29.2 % heads of families had high satisfaction. And 18.1% of them were low satisfied with Village health education by doctors and staffs. Majority 51.4% heads of families had satisfaction with Regularity of field visits were averagely, 29.4 % heads of families had high satisfaction. And 19.2% of them were low satisfied with Regularity of field visits.

7.11 Satisfaction with demographic characteristics-

The majority of heads of families were predominantly male. Pearson Chi-Square for gender and level of community satisfaction was less than.0001 it has proved that there is a significant association between gender and satisfaction in the rural area. There is no significant association between age of heads of family members and satisfaction in the rural area. Formal education and level of satisfaction had borderline association in the rural area.

There is no significant association between the occupation, income, housing and sanitation and community satisfaction with health services provided by health workers in rural area. Community health services were particularly important in the rural areas due to long distances to the nearest health facilities that are beyond the recommended minimum distance of 5km, plus the related high transport costs. Community services have the potential to reach a large

proportion of the community within their own locations, including the 'hard to reach'. A major feature of client satisfaction with the community health services is the opportunity to get access to a wide range of services delivered as a package. From the views expressed, it would appear that a large measure of client satisfaction with ease of access to community health services was clearly indicated.

Community satisfaction is one of the most important determinants of the quality of services. The current study revealed that clients were averagely satisfied which indicated providing a relatively acceptable health services quality. The similar demographic distribution of both subsamples suggested that the satisfaction levels in the community were mainly related to providing a higher quality of health services. A review of the health care polices in the Maharashtra and in the governmental CHCs was conducted by the researchers in order to further investigate possible reasons for this level of satisfaction in the Satara districts. Two major policy differences were identified. Firstly, the Satara districts offered free health care services, low-cost health care services. This probably increased client satisfaction levels in the community, since the affordability of services has a positive effect on client satisfaction [18]. Secondly, health worker used a family health team approach for the delivery of their health care services. The services to deliver health care services to the whole family by a health care team that consisted of a doctor, one or more nurses, and a midwife. Using such an approach could probably have increased their client satisfaction levels especially in the coordination of services dimension. In the current study female, lower educated clients had higher levels of satisfaction. Two studies of client satisfaction with nursing care among a Jordanian population also reported that females had higher levels of satisfaction than males [25]. On the other hand, studies conducted among other populations reported that males were more satisfied than females [4,11]. However, the effect of educational level in this study was consistent with studies conducted among both a Jordanian population and other populations. This suggested that the effect of gender seemed to change in different population, while the effect of education seemed to be more universal.

In relation to age, younger clients were more satisfied in this study. This finding contradicted the findings of the two Jordanian studies which reported that age did not affect client satisfaction levels. Moreover, studies that were conducted in different populations reported that older clients were more satisfied than younger clients. In this current study, no effect of perceived health status on client satisfaction level was reported. This contradicted with another satisfaction study's finding which reported that healthier clients tend to be more satisfied.¹⁰ this lack of consensus in relation to age and perceived health status effects on clients' satisfaction levels suggested that these two variables were not as important as gender and educational level. The current study concluded that clients were moderately averagely with the health services delivered in the selected sub centers. Policies in community health organizations should place more attention in coordinating their services especially by allowing their clients to be more actively involved in the planning of their own care. Also, staff development programs in community health organization should focus on increasing the ability of health

workers to communicate more effectively with clients. Less educated clients tend to have higher satisfaction levels and the effect of gender seems to differ among different populations. Age and perceived health status seem to be less important determinants of client satisfaction.

8. Conclusion

In order to provide Quality Care in rural area, Indian Public Health Standards (IPHS) are being prescribed to provide basic primary health care services to the community and achieve and maintain an acceptable standard of quality of care. These standards would help monitor and improve functioning of the sub-centre. In the present study it was found that adequate facilities were available at sub centers as per Indian public health standard with grade A+ and grade A. Almost all Health Worker showed averagely satisfied with their present job. So there is a scope for improvement in the level of job satisfaction from employer's point of view. Community showed averagely satisfaction with services provided by the health workers in rural area thus further increase in satisfaction of clients would be possible by adequate drug supply, less waiting hours and transport facilities for emergencies.

9. Recommendations / Future Scope of this study

Improving availability of services at lower health levels

Set up effective basic diagnostic support services with appropriate staff to provide simple basic laboratory tests especially in busy primary contact levels to improve quality of management of patients and speed up process of care to reduce long queues and congestion. Increase hours for providing services especially at lower health units and OPD units by changing policy to provide for at least half-day opening on Sundays so as to improve weekend availability of services at health units nearest the people.

9.1 Improving staff levels and performance

Identify major skills gaps and organize in-service training with the help of development partners and through revisions of basic training curricula, relevant critical skills should be offered to strengthen communication and counseling skills and knowledge of health service users' rights such as the right to access quality information. Improve further staff motivation and support at all levels, to engage health workers' full commitment to their work, reduce unprofessional behavior and increase staff efficiency.

9.2 Improving drug supply and drugs management

Districts should be supported to ensure that the supply of drugs in government health units is adequate and consistent-one trusted by users. More efforts should be taken to improve drug management at all levels in government health facilities, through more close and effective monitoring of public medicines. PHC funding for drugs should be increased and in-service training on effective drug management should be offered to those in charge of drugs

for better planning, procurement, distribution, monitoring and reporting of public drugs and medicines.

9.3 Improving management of health units

Establish revitalize and strengthen functions of the Health Unit Management Committee especially at lower facility levels to actively involve communities in the management of their health services and to effectively make health workers accountable to communities they serve. The roles of Health Unit Management Committee should be expanded to include ensuring normal facility opening hours, improved staff-patient relationship, prevention of payment of unofficial fees and interacting with support supervision teams for feedback.

9.4 Ensuring affordability of services

Government should continue to subsidize services that might be available only in private owned facilities especially in localities where government may not be providing such services. Private providers should reduce charges especially at primary contacts in the rural areas.

9.5 Improving availability of health transport

Government and development partners need to provide more ambulances that should be more equitably distributed in districts. More funds should be provided for fuel with proper management and accountability at health units ensured. Districts working with civil societies should continue to explore and develop participatory community strategies for providing emergency transport, especially for emergency obstetric services. Formative research will be required to explore different approaches appropriate in different setting. Government efforts should be intensified for improving physical infrastructure, developing road network and public transport systems in rural areas.

9.6 Improving and sustaining good customer care

Districts should be assisted to establish customer care departments in public health facilities especially hospitals, as a way of systematically gathering users' views and get a feed back on how to improve services offered. Reward systems should be established at health unit, sub centers and district level, to recognize health units, departments and individual providers with outstanding provider-patient relationship

9.7 Improving buildings, cleanliness, lighting and security

Providing adequate privacy will require providing more service space for consultation, examination and treatment of patients, including providing doors and screens in OPD and wards. Districts should ensure that general cleanliness in all health units improves by enrolling adequate numbers of cleaners. Sanitation standard in health units should be established for latrine stances per number of patients using a health facility to ensure adequate sanitation in rural areas. Districts should ensure construction of adequate sanitation facilities at all facility levels and support health units to develop adequate solid waste disposal, especially in urban areas. Health education programme should target users, to develop a culture of proper sanitation and keep health facilities clean. Districts should be assisted to provide

adequate lighting in public health facilities such as linking the programme to rural electrification and other ongoing community lighting projects. Health facilities should be adequately fenced to ensure security and should be boosted by providing for watchmen. Innovative partnership with private sector and civil organization should be taken advantage of in this respect.

9.8 Actions at community level

Re-direct poverty eradication programmes at community and family level to make a difference in the prevailing poverty levels and encourage families to prioritize health expenditure, alongside with those that will effectively involve men in health care. Setting up mechanisms for effective feedback from users by linking village structures such as Village Health Teams to work with Health Unit Management Committee, is recommended so as to meet users' expectations. Civil organizations working with Village Health Teams should direct their efforts to sensitizing users on their rights, especially the right to access quality information and support for self-care and for involvement users and family in health care.

An effective health education programme should be developed and carried out to sensitive people to enhance a culture of good sanitation, including hygiene and hand washing practices. Districts need to intensify community efforts to improve access to clean water and construct and use sanitation in at household level by increasing resources for good sanitation in communities.

Efforts to upscale community bases services to wider areas in districts and outside those districts should be made, drawing on experiences of existing programmes. Formative research to develop strategies to upscale community services in different settings should be conducted

9.9 Indicators of Satisfaction

Indicators of satisfaction at health facility level included availability of drugs, attendance/utilization rates, range of services provided, waiting time in health units and availability of transport for emergency care. At district level, proportion of health units- with professional posts filled, adequately equipped and has adequate supplies, minimum expected space for offering services at respective level, and have adequate utilities (water, sanitation general cleanliness and lighting) and security/fencing. These indicators should be incorporated within existing quality assurance and other existing measurement procedures and standards on a regular basis. Periodic qualitative assessments were recommended for more qualitative indicators of clinical effectiveness, access to information and humanity of care.

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