A cross sectional study on factors influencing the quality of primary health care services provided by multi-purpose health workers in Tiruvallur district, Tamil Nadu

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Abstract

**Background:** Primary health care definition extends beyond physical aspect to mental and social wellbeing. Health care providers starting from physicians till basic level workers, play a vital role in identifying and meeting client’s health care needs. Quality care is the ability to meet the health related needs of the population consistent with local and national goals, as well as resource constraints and considered as complex variable encompassing both tangibles and intangibles. Multipurpose workers are the frontline workers were the health problems were sorted out or referred to the next level of health care.

**Objective:** The objective of the study is to identify enablers to a quality primary health care service in Tiruvallur district, state Tamil Nadu.

**Methodology:** This is an analytical cross sectional study carried out on 149 Multi-purpose Health Workers calculated assuming maximum variability and 80% power. The study area Thiruvallur was selected through random sampling and five blocks namely Kadambathur, Minjur, Ellapuram, Tiruvalangadu and Tirutani were selected using lottery method. The study was carried out during the period between January 2019 and June 2019. A structured questionnaire was used to elicit responses. Data were entered on MS Excel sheet. Statistical analysis was done with SPSS 17 version.

**Results and Discussion:** Out of the total 149 Multi-purpose worker included in the study, 98 (65.77%) were females. Majority of them (34.90%) fall within the age group of 3 to 31-40 years. Among them 49.66% have completed their higher secondary level education. Around 57.04% have completed more than 15 years of service. Their structural indicators were below the expected standards compared to process and outcome indicators.

**Conclusion:** Majority of the works were done properly except some defects in the structural level. Resources and Budgets should be reassessed and reallocated. Accredited activities should be made mandatory and should be considered as achievement by the entire health team. Regular audit and appraisal sessions are necessary. MPHW and client satisfaction survey should be done periodically to ensure the quality of services.

**Keywords:** quality, primary health care, services, multi-purpose worker

**Introduction**

The WHO definition of primary health care extends beyond the physical aspects of health to include mental and social well-being [1]. A quality service attempts to capture all aspects of the definition. This means that primary health care service programs must take into account the social context in which client’s live. Addressing the socio-cultural determinants of client’s health” thus becomes a necessary part of any quality health service. Studying the components of quality must be sensitive to the social context, such as the client-provider relationship and information exchange, can increase our understanding of the health services factors influencing health-seeking behaviour, and can provide insight into the more successful preventive and curative approaches to primary health care [2].

An extensive primary health care infrastructure provided by the government exists in Tamil Nadu. After advent of National Health Mission and Universal Health coverage enormous emphasis is now being laid on quality of care than on quantity of care. Quality of health care services is a complex variable, encompassing as it does tangibles such as availability of drugs and equipment and intangibles such as courtesy and respect shown to
Patients during visits by providers. The quality of health care services provided by the public health system in Tamil Nadu is improving rapidly along almost all the criteria on which quality can be judged – infrastructure, availability of drugs and equipment, regular presence of qualified medical personnel and treatment of patients. Still the system is supportive of only the poor but the middle class and rich are reluctant to use it [3].

Health care providers, such as doctors, nurses, paramedics, technicians, and health workers, who deliver primary health care services, play a major role in identifying and meeting clients’ health care needs. Within the public health system, primary health care services provided through sub centers and primary health centres in rural areas. A sub centre is the first level of contact of the community with the health care system. Village Health Nurse’s and Health Inspectors are collectively known as multi-purpose health workers [MPHW’s] are the principal functionaries at a sub centre. Since most of the health complaints are sorted out and attended to at the sub centre level or referred to next level of care they should be competent and optimal skills are needed. How well they respond to clients’ needs depends on individual providers technical and interpersonal skills and above that on the infrastructure of the health care system and health care providers’ perceptions about what defines high quality care [4].

For the health care workers, quality means excellence or perfection or technical expertise. For the client, the humanistic dimensions of quality are important, like social, personal and culturally acceptability and ethical care. In primary health care context, quality care is the ability of to meet the health related needs of the population consistent with local and national goals, as well as resource constraints. Quality is a composite concept that can be broken down into manageable components. Donabedian, the American father of quality control, broke quality down in three components, namely structure, process and outcome [5].

Structure refers to the human and material resources and organizational framework that is necessary for the work to be done. Process deals with how the service is carried out. This is the interaction between the multipurpose health workers and other health care workers and the client. Outcomes are the end result of the care provided. In this study, Donabedian’s framework has been used to evaluate the quality of primary health care services and identify the enablers of quality primary health care. This study aims to examine those factors that influence and are experienced by MPHW’s in the rendering of quality primary health care in Tiruvalur district of the state of Tamil Nadu. There is no formal knowledge of the factors that influence the quality of primary health care given by Multi-Purpose Health Workers. Before quality can be managed an in-depth study should be done to investigate factors that influence the quality of primary health care that is rendered [6].

Materials and Methods
The design of the study is quantitative, descriptive and cross sectional in nature, aimed at giving an accurate account of the characteristics of the Multi-Purpose health Workers, as well as what quality services are delivered by them and the factors that enable the provision of quality primary health care. The study was conducted during the period between January 2019 and June 2019. Sample size calculation on presuming maximum variability and giving a power of 80% yielded 100 respondents. The sample was drawn through an area random sampling method and five blocks were selected using lottery method. The chosen blocks are Kadambathur, Minjur, Ellapuram, Tiruvalangadu and Tirutan. Data collection was done from all the multipurpose health Workers within the sampled blocks. A questionnaire was constructed for this study to elicit responses from the multipurpose health workers to explore the factors influencing quality of primary health care services. The questionnaire had several sections, with biographical data about the respondent as the first (A) section. The following B section covered the structural/process and outcome factors influencing the quality of care provided according to the theoretical framework. Informed and written consent was obtained before administration of questionnaire. Confidentiality was guaranteed.

Results
Out of the total 149 multi-purpose health workers included in the study, 34.90 percentage of the sample consisted of people in the age group 31-40 years while 25.50 percentage of the sample consisted of people in the age group 21-30 years. Among the MPHW’s 65.77 percentage were females (n=98). 49.66% of MPHW’s were higher secondary level educated and 34.23% were matriculation level educated. Only 16.11% were graduates. The majority (57.04%) of the respondents had worked in service for more than 15 years and only 7.38% had work experience less than 5 years (Table 1).

Structural indicators
The results show that the MPHW’s performance on some structural indicators were below expected standards. Some structural activities which needed to be optimized are adequacy of budget (16.11%), adequate building facilities (31.54%), proper material resources supply (44.30%), adequate human resource (17.45%), effective information system (32.21%) and proper supervisory advice or effective feedback on performance (14.77%). Majority of the respondents (89.26%) received their training in primary health care in various training institutes across the state.

Process indicators
It was revealed that process oriented activities in the delivery of primary health care were sufficient. These activities included adequate documentation (65.77%), complete physical examination done (81.88%), requisite medical tests done (68.46%), relevant prescriptions given (67.79%), and capacity to handle patients without referral (65.10%) and communicate medical terms easily (52.35%). A large number of MPHW’s (73.83%) indicated that they spend less than adequate time to consult the clients.

Outcome indicators
On assessment of outcome indicators in the delivery of primary health care, activities like satisfaction with own competencies (66.44%), ensuring short patient waiting time (62.42%), high feeling of self-worth (51.68%) and good attitude of colleagues towards them (71.14%) were on the positive side. But community accepting MPHW’s as principal role player was very low (17.45%).
Discussion
The majority of the Indian population utilizes public health services for their needs, starting at the first contact point, which is primary health care. This type of care is supposed to empower people to lead healthy lifestyles. Primary health care is therefore an investment in human potential and there is a desperate need for quality in delivery of this service. Very few MPHW’s indicated that the budget provided is adequate to cover the needs of the whole service, building facilities are inadequate and there were not enough waiting rooms for clients and toilet facilities for staff and clients, most reported that they often experienced problems when receiving stock from stores, such as blood pressure apparatus, stethoscopes, bandages, linen, disposable needles, syringes, gloves and medicine, many were worried that they did not have enough staff members for the facility and reported that no effort was taken to increase human resources to meet the increased workload. There was a heightened concern about the information system prevailing, which provided no real time performance data and lack of any proper supervisory advice or effective feedback on performance from their supervisors. Our study showcased several weaknesses in structure indicator measurement. Expanding services, inadequate staffing, increase demand for healthcare impact negatively on the quality of work they have to do. The MPHW’s blamed the number of clients that each MPHW has to see, as well as lack of time to see the patients as the cause of unhealthy quality practices. The average time spent on consultation per patient is 6-10 minutes. Ten minutes is very short to interview, examine, diagnose patients, and this puts MPHW’s under tremendous pressure. This state of affairs can also be very annoying to patients who waited for 2-4 hours for consultation. When the MPHW’s were asked what they do when they do not have enough time to handle all the patients, faster work resulting in missing important details, sending away patients, getting stressed and wilfully expressing unprofessional attitude was the reply. The MPHW’s commonly experienced very demanding, unreasonable and aggressive clients. Very rarely they encounter thankful and collaborative clients. Generally MPHW’s feel that they are not remunerated enough for what they do and that their supervisors do not listen to their problems. The habit of not being valued and motivated and listened to, is carried over from supervisors to their MPHW’s. MPHW’s are considered to be the most effective role players in the community only after teachers and women self-help groups. This may be due to reduction in communication between MPHW’s and clients to very low levels. Lack of privacy, low literacy levels of clients, cultural differences and impatience of the MPHW’s was reported as the reasons. This is disappointing, as one would want MPHW’st to be active in deciding, facilitating and managing community’s health care needs. On analysing all three components that enable the provision of quality primary health care services, it is clearly seen that scarce resources is causing great stress for the health workforce. This has a negative impact on relationships between Multi-purpose health workers and their clients, the type of service provision and managing that take place and the quality provision during examination and treatment. Slow changes frustrate workers, causing more stress and poor attitudes, feelings of n' t being valued and not being motivated (internally and externally). These components of Donabedian’s’s framework used to evaluate the quality of primary health care services are interdependent. If the structure component is inadequate, this will influence service delivery in the process component. For instance if there is not enough staff or money to pay staff, fewer patients will be seen and more illnesses will prevail in the community. This means that the morbidity and mortality for the community will be high, which impact on the outcome component. If the outcome component is unsatisfactory, more work has to be done by less people, thus the outcome component influences the process component. This is a vicious cycle. The working environment is not humane anymore and contributes to burnout. Multipurpose health workers feel that they are under siege in an unsafe working environment and find constraints imposed on achieving quality because of resource limitations. Although the MPHW’s workforce may be discontented and overworked, they still try to deliver their best, with few errors. Clients still have a lot of respect for their health care deliverers, but this trend may not continue much longer and has started to go down. Expanding services without expanding workforce are resulting in more clients returning more often to avail primary healthcare service, causing even more stress for MPHW’s.

Conclusion and Recommendations
Most activities in relation to provision of quality primary health care services have been done properly, but still there are some lacunae especially in the structural level. Resources needs to be re-assessed and budgets accordingly reallocated. Human resources should be developed in a creative and innovative manner and not taken advantage off, to squeeze the last ounce of productivity out of them. Health managers and management needs to become more democratic. Managers should keep abreast about the newest trends in quality management, and strive to be part of renewal that these initiatives bring. Accreditation activities should be made mandatory and should be considered as an achievement by all health team workers. Communication and feedback to employees is a big issue and needs to be looked into as soon as possible. It is a offence to let people work and not let them have goals, give them feedback about how they are progressing, show them their progress and advice where they should change direction. Regular audit and performance appraisal sessions are necessary. There is a need to implement health committees that participate and decide their health. A letterbox system is needed for feedback and complaints. These complaints from clients should not be seen as a session where you deny all responsibilities, but should be converted to a learning situation for staff and the clients. This way the client learns about health system culture and the MPHW about clients and community, so that their needs can be identified and addressed in a far more efficient and effective manner. A MPHW and client satisfaction survey should also be periodically conducted to evaluate the quality of activities in the delivery of primary health care services for clients.
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Conflicts of interest
There is no conflicts of interest

Ethical approval
Prior permission was obtained from the Institute of Ethical Committee, Madras Medical College. Informed consent was obtained from each participant.

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