Original Research Article

Referral pattern of pregnant women coming to Cheluvamba Hospital, Mysuru, Karnataka

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ABSTRACT

Background: Maternal morbidity and mortality remains a major challenge. At present pregnant women can visit any level of health care irrespective of severity of their health condition. Most of the burden of these pregnant women is on tertiary centers, hence depriving the seriously ill of the expert care. Most of the pregnancies can be managed at primary level itself. This study was therefore conducted in order to describe the referral pattern of pregnant women coming to Cheluvamba Hospital, Mysuru.
Methods: It was a cross sectional study conducted during September 2018 with sample size of 100. All the pregnant women who were referred in the second week of September 2018 were included in the study without using any sampling technique and data was collected by interview using the semistructured questionnaire.
Results: Mean distance travelled by study participants from their residence to Cheluvamba hospital was 42.1±29.8 kilometers. Main obstetric and logistic reason for referral was because of hypertensive disorders and non-availability of doctors respectively. Average number of ANC visits and mean gestational age upon arrival at Cheluvamba hospital was 6.71±2.3 visits and 37.4±3.6 weeks respectively.
Conclusions: Most common obstetric reason for referral was hypertensive disorders. A structured referral system would help both the patient and the doctor in providing necessary obstetric care.

Keywords: Obstetric care, Referral pattern, Tertiary care, Primary health care

INTRODUCTION

Maternal morbidity and mortality remains a major challenge. A referral can be defined as a process in which a health worker at a one level of the health system, having insufficient resources (drugs, equipment, skills) to manage a clinical condition, seeks the assistance of a better or differently resourced facility at the same or higher level to assist in or take over the management of the client's case.[1]

Identification and referral of high risk pregnancies are an integral part of maternal and child health services. An effective referral system ensures a close relationship between all levels of the health system and helps to ensure people receive the best possible care closest to home. It also assists in making cost-effective use of hospitals and primary health care services. Support to health centers and outreach services by experienced staff from the hospital or district health office helps build capacity and enhance access to better quality care. In many developing countries, a high proportion of clients seen at the outpatient clinics at secondary facilities could be appropriately looked after at primary health care centers at lower overall cost to the client and the health system.[2]

The health care system in India is plagued by overcrowding, lack of specialist doctors, paramedics and an effective referral system. There is a provision for referral of patients from sub centres, primary health centres, community health centres to sub district or district level and then to tertiary health facilities in medical college hospitals, super speciality hospitals and research institutes under the public health care in India. The actual practice of referral is entirely different than that is laid down in principle. At present pregnant women can visit any level of health care irrespective of severity of their health condition. Most of the burden of these pregnant women is on tertiary centers, hence depriving the seriously ill of the expert care. Most of the pregnancies can be managed at primary level itself.[3]

For a referral system to work at its best, relationships between service providers should be formalized and referral procedures should be agreed upon. All levels of the health system, including primary health care services, need to be functioning appropriately.[4] This study was therefore conducted in order to describe the referral pattern of pregnant women coming to Cheluvamba Hospital, Mysuru.

Objectives

- To describe the referral pattern of the pregnant women coming to Cheluvamba hospital.
- To describe the associated factors influencing the referrals.

METHODS

A hospital based cross-sectional study was carried out in Cheluvamba Hospital, Mysuru. Study population being pregnant women visiting Cheluvamba Hospital, Mysuru for delivery or for complications of pregnancy. Inclusion criteria being those who are >18 years of age (to limit legal hurdles) and those who give informed consent. Booked cases (those who have undergone all the ANC checkups at Cheluvamba Hospital and taken Iron and Folic acid tables) were excluded as they don't belong to the referred women's category. Sample size of 100 was taken based on the average number of referrals in 1 week in the past 4 weeks. All the pregnant women who were referred in the second week of September 2018 were included in the study without using any sampling technique.

Data collection was done during 2nd week of September 2018 by interview using semi-structured questionnaire which contained various sections such as demographic details, obstetric and logistic reasons for referral, time duration and distance between the referrals, etc. Data collected were entered in MS-Excel and analyzed using Epi-info software. Descriptive statistical measures like percentage, mean, and standard deviations were used.

Operational definition

A referral can be defined as a process in which a health worker at a one level of the health system, having insufficient resources (drugs, equipment, skills) to manage a clinical condition, seeks the assistance of a better or differently resourced facility at the same or higher level to assist in or take over the management of the client's case.[1]

RESULTS

In the present study average age of the study participants was 23.7±3.9 years. Out of 100 study participants majority i.e., 83 (82.0%) had BPL ration card and 48 (48.0%) of them had high school education. Most of the study participants i.e., 31 (31.0%) belonged to class III socio economic status. Majority i.e., 45 (45.0%) of the study participants confirmed pregnancy at PHC near to them (Table 1).

Table 1: Sociodemographic details and place of confirmation of pregnancy of the study participants (n=100).

	Frequency	%
Distribution of study participants according to BPL (below poverty line) card status		
Have BPL ration card	83	83.0
Don't have BPL ration card	17	17.0
Distribution of study participants according to their level of Education		
No formal education	3	3
Primary school	20	20
High school	48	48
Pre-university education	18	18
Degree holders	11	11
Distribution of study participants according to socio economic status [modified BG Prasad classification]		
Class I	3	3
Class II	21	21
Class III	31	31
Class IV	30	30
Class V	15	15
Distribution of study participants according to place of confirmation of pregnancy		
PHC	45	45
CHC	4	4
Taluk hospital	30	30
District hospital	1	1
Medical college	6	6
Private clinic	3	3
Home	7	7
Maternity hospital	4	4

Table 2: Reasons for referral of the study participants (n=100).

	Frequency	%
Distribution of study participants according to place where last ANC check-up was done		
PHC	26	26
CHC	5	5
Taluk hospital	40	40
District hospital	9	9
Medical college	7	7
Private clinic	2	2
Home	1	1
Maternity hospital	10	10
Obstetric reason for referral		
Hypertensive disorders	21	21
Preterm labour	5	5
IUGR	5	5
IUFD	3	3
Abruptio placenta	1	1
Placenta previa	2	2
Rh negative status	3	3
Severe anemia	6	6
Heart disease	5	5
PROM	11	11
Mal presentation	5	5
Postdatism	9	9
Fetal distress	2	2
Febrile morbidity	4	4
Previous CS	7	7
Gestational DM	2	2
Cephalopelvic disproportion	2	2
Multiple gestation	1	1
Not availability	6	6
Logistic reason for referral		
Non availability of NICU	18	18
No blood bank	11	11
No ICU facility	6	6
Anesthetist not available	2	2
Doctors not available	43	43
No ultrasound facility	2	2
No operation theatre	11	11
Building under renovation	2	2
No laboratory facility	3	3
Not available	2	2
Reason for choosing Cheluvamba hospital		
Availability of specialist 24/7	34	34
Feedback from friends and family	2	2
Advice by referral source	61	61
Low cost	3	3
Gravidity of the pregnant women who were referred		
1	51	51
2	33	33
3	10	10
4	4	4
5	2	2

Mean distance travelled from their residence to Cheluvamba hospital was 42.1±29.8 kilometers. Main obstetric reason for referral was because of hypertensive disorders. Main Logistic reason for referral was because of non-availability of doctors at the referral source. Average time taken to reach Cheluvamba hospital was 61.3±39.4 minutes. Major reason for choosing Cheluvamba hospital was due to advice given at referral source (Table 2). Average number of ANC Visits and mean gestational age upon arrival at Cheluvamba hospital was 6.71±2.3 visits and 37.4±3.6 weeks respectively.

DISCUSSION

In a study conducted by Devineni et al 100 pregnant women referred from various centers in a 3 month period most common diagnosis at referral was medical disorders complicating pregnancy (45%) among which hypertensive disorders accounted for 34%, followed by severe anemia (17%) which is similar to the present study where the main reason for referral was hypertensive disorders and the time taken to reach the referral center ranged from 3 hrs to 18 hours which is more than the present study the difference may be due different geographical location of the study centers and availability of transport facilitites.[5]

In a study conducted by Maskey et al, most common diagnosis at referral was medical disorders complicating pregnancy (38%) among which cardiac disease accounted for 20%, followed by hypertensive disorder (17%) which is similar to the present study.[6]

In a study conducted by Charu et al, majority of referrals were for hypertensive disorders (26%) and preterm labour (26%) which is similar to the present study.[7]

In a study conducted by Kant, et al, the main logistic reason for referral was non availability of NICU whereas in our study main logistic reason was non availability of specialist doctors followed by non-availability of NICU, the difference may be due different geographic locations of the studies.[8]

Major strength of the present study is the place of study since it's a government tertiary care hospital, it reflects the situation of other govt. institutions in the Southern India. Since the data collection was done for only 1 week, situation over the wide period of time doesn't reflect in this study.

CONCLUSION

Most common obstetric reason for referral was Hypertensive disorders followed by PROM. Most common logistic reason for referral was non availability of doctors followed by non-availability NICU. Primary level healthcare should be strengthened to provide necessary obstetric care. A structured referral system would help both the patient and the doctor in providing necessary obstetric care.

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