

ORIGINAL ARTICLE

“Hidden costs” of delivery in Government Maternity Hospitals at tertiary health care level in Telangana state

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ABSTRACT

BACKGROUND: In 2013, about 50,000 women in India died due to pregnancy-related complications. The current MMR of Telangana is 92 with Hyderabad having an MMR of 71 per 1 lakh population. Even though the government has launched JSSK for providing free services for all MCH services, there are some hidden costs. so the present study was done to study on the economics and hidden costs at a tertiary care maternity health facility of the government. **MATERIALS AND METHODS:** The current study was conducted using a semi structured questionnaire survey and in -depth interview among 100 post -partum mothers and their attenders over a period of 3 months. Mothers with serious complications were excluded. Information was collected on the cost of maternity care, household income etc. **RESULTS:** The mean hidden cost for the patient for normal delivery was Rs. 2000 and for Caesarean Section was Rs.3500. The major hidden costs were spent on blood, blood products, on food of the visitors/relatives and for the bribes to be given to the other hospital staff performing cleaning services. **CONCLUSION:** Information gained from this study can be used to identify areas where costs could be reduced and where output or productivity could be increased. It may be used as a resource tool for financial management in hospitals and for suggesting measures in making maternal healthcare more affordable for below poverty line families.

Key words: Hidden costs, maternal health, Tertiary Government health facilities, India

INTRODUCTION

In 2013, about 50,000 women in India died due to pregnancy-related complications.¹ India with a maternal mortality ratio at 167/100,000 live births requires to achieve a rate of 109 by 2015, for which the Government has put forward schemes as JSY(Janani suraksha yojana) and JSSK (Janani shishu suraksha yojana) to provide universal 100% institutional deliveries. The current MMR of Telangana is 92 with Hyderabad having an MMR of 71 per 1 lakh population.² Reduction in maternal mortality rates as observed in most high-income countries was achieved by providing access of pregnant women to skilled care during pregnancy and childbirth and to the guaranteed provision of safe interventions such as assisted vaginal delivery and Caesarean section. In order to prevent this mortality and improve quality in care, the Government Of

India(GOI) has introduced JSSK to ensure free-of-cost care for all childbirth and neonatal care at public health facilities.³ A major proportion of health expenditure in India is met by households (61.8%) followed by the government (28.2%), business firms, and external flows.⁴ Often, the health expenditure in India is catastrophic for the resource-constrained households.⁵ Similar pictures are also noted for maternity care, especially in rural and slum areas.^{6,7} Poor households often resort to borrow cash or sell assets to meet the health expenditure.^{8,9} The Government considers these services “Free” and even compensates the candidates for the loss of their daily wages. Even though government is providing all the services, we found that there were some costs that have to be met and we called them the “hidden costs” which could make institutional maternity care an expensive experience for families below poverty line. A very few studies were done to study the hidden costs of the institutional delivery in our country so the present study was done to study on the economics and hidden costs at a tertiary care maternity health facility of the

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government. The present study also estimate the total cost of a delivery (CS or VD) to a household on direct and indirect costs such as expenditure on food, transport, drugs, tests, blood transfusion, informal care givers time cost, hospital dues and informal payments (tips and bribes).

MATERIALS AND METHODS

The present study is a cross sectional study done over a period of 3 months at a tertiary care government health facility in Hyderabad. The hospital, a teaching and general referral hospital provides maternity services to women of the cities of Hyderabad and also the districts of Mahaboobnagar, Adilabad, Bidar and Nalgonda -a total population of over 6 million .It is atop institute of the state of Telangana and has average of about 60-70 deliveries per day. To estimate the out of pocket expenditure 100 postpartum mothers were selected randomly over a period of 3 months. Convenience sampling technique was used for selection of interview candidates from the vast variety of obstetric cases in the general ward. All patients were interviewed at the hospital between January 2016 to March 2016. All cases to be discharged were identified after major ward rounds (two to three in 24 hours). All post-partum mothers delivering at term (36-42 weeks of gestation) either by spontaneous vaginal delivery or Caesarean section were included in the study. Patients admitted in private ward/rooms, those who are not delivered at the hospital but admitted for post-partum complication, those who are not willing to participate in the study were excluded from study. Informed consent was taken from all the study participants and institutional ethical committee approval was also taken to conduct the study. A semi- structured questionnaire was used to interview post-partum mothers in the ward. As majority of mothers were not able to provide sufficient details and lacked accuracy on costs and expenditure the help of their husbands or a close relative or attender (mostly mothers) was sought. The study was conducted over a period of 3 months so as neutralize the posting of the staff who has shifts every month. MS excel

2010 and SPSS (Statistical package for social sciences) Version 21 was used for data analysis.

RESULTS

Table1: some important characteristics of study population

Characteristic		Frequency(n) (N=100)	Percentage (%)
Age Distribution	< 20 years	20	20%
	20-29 years	80	80%
	≥ 30 years	0	0%
Distance from Hospital	< 5 kms	30	30%
	5-10 kms	30	30%
	>10 kms	40	40%
Type of Delivery done	Vaginal delivery	52	52%
	Trial for VD f/b C-S	15	15%
	Elective C-S	33	33%
Occupation of Husbands	Daily wage labourer	90	90%
	Private employees	10	10%

80% of the patients were of the age group 20-29 yrs and the rest under 20 yrs. 30% of the patients lived fewer than 5 kms distance, 40% came from the adjacent village which are more than 10 kms and 30 % within a radius of 5-10 kms. Most of them living under 10kms travelled by autos and in buses for those coming from the adjacent village for all their antenatal visits. Some used the car when set into labour for emergency. At least 2 people accompanied the patient every time and in some cases 4 members accompanied the patient for the visits and delivery. 52 patients came in labour and delivered vaginally, 15 were given a trial of labour followed by caesarean section, and 33 were admitted through OP for an elective CS. Almost all the patients and their husbands received only primary education or were illiterate. They were mostly daily wagers, coolies, 10% were employed in private enterprises. All had TV in their household and had cell phones. 20% had even smart phones. In 60% of the cases the mother – in law was the decision maker in the house and she was the motivator to come to this hospital. The mother played secondary role. 75% had antenatal check-ups at multiple clinics, at their local PHC doctors, by their family doctor in private clinics and also at this hospital. 85% had cards /books issued by

the local ANM. They had visited the hospital for antenatal check-up more than 5-8 times. 70% underwent investigations at GMH only, while others had investigations done in hospital and private labs. There was duplication in many cases. Duration of stay for normal delivery was an average of 3 days, while for Caesarean Section was 10 days. There were at least 3 attenders with the patient every day.

Table 2: The Maternity care expenditure

Sl. no	ITEM of Expenditure	Cost
1.	Transport	Bus from village Rs.200 /per person, rest by autos of relatives
2.	Shaving	Rs. 100/-
3.	S/W enema	Rs. 100/-
4.	Shifting the patient	Rs. 1000/-
5.	In the wards for sweeping and moping the ward	Rs. 10/day to a total of Rs100-200/-
6.	At discharge	Rs. 200-500/-
7.	For blood	Rs. 1500/- if blood products needed an extra Rs. 1500/-
8.	Food per day	Rs.300/- per person , sometimes ate the food supplied by the Hare Krishna matt or sent from the relatives houses then no expense

The mean cost of a normal delivery was Rs. 2000/- and for a Caesarean Section Rs.3000-3500. Most of the expenditure was on travel, food and buying a blood for transfusion. Many mothers ate the food supplied by the hospital and also shared it with the attender. For all these personal expenses of food, visitors and transport, the incidental expenses were met by the patients family from their own earning and none had to borrow any money from any financiers.

DISCUSSION

There was a drastic improvement in the maternal and child health of our country especially in southern parts of India with the implementation of JSY and JSSK by government of India. Telangana state was also a part of the improved and better states in the aspect of maternal indicators with the evidence present in the form of MMR of 92 per lakh population which is the below the target of millennium developmental goals to be achieved by the year 2015. In southern parts of India, the services of government health facility are mainly utilised by families under below poverty line. Even though the Indian government is

providing all facilities under JSSK, we could find some hidden costs which are added burden to those families. The hidden cost of an average of Rs. 2000 for a vaginal delivery and Rs. 3000-3500 for a Caesarean section which is similar to a study done in Bangladesh.^{10, 11, 12} Among the hidden costs, majority was the amounts spend on blood and other blood products which are to be transfused if required during or after delivery. The charges for viral marker and bacterial markers screening of donor blood are also to be borne by the families of the pregnant woman which is an added burden to them. Similar findings were seen in a study done by Shamsun Nahar et al.¹² Indian tradition of the relatives of family visiting the mother and new born is another added burden to the family as the food, refreshments and sometimes transport are also to be borne by the family of the delivered women which is the second highest contributor to the hidden cost. The other major hidden costs are the payments to be given to the class IV employees in the hospital for the shifting of the patient from labour room or operation theatre to general ward, sweeping duties, at the time of discharge which are similar to the study done in Bangladesh.¹² These hidden costs are pushing the families in to further poverty. The apparently "free" maternity care at government hospitals involves substantial hidden and unpredicted costs. The anticipated fear of these unpredicted costs may be major factor for many poor households to seek cheaper alternate maternity healthcare. There were some limitation of quality of the cost data on services including the blood bank and laboratory (pathology, biochemistry etc). Record of budget and expenditure on these services was not available but accurate data on number of maternity patients taking the tests and the number and kinds of tests taken by each maternity patient was not documented in a manner to fulfil the requirements of the study. Another limitation of our study was the inability to interview complicated vaginal delivery. The costs of delivery in our study are representative of costs at tertiary level public hospitals but may not be

representative of costs in rural or semi-urban settings, at primary & secondary healthcare level nor is it representative of deliveries in the private sector.

Further studies on detailed hidden costs on large scale to be studied by a multi-centric study involving all the maternity hospitals in Telangana. Appropriate and necessary steps are to be taken by government regarding blood products and also necessary action to be taken by the hospital authorities on the additional money taken by the class IV employees from the patients. There is also further need to strengthen JSSK services by government with an appropriate supervision and timely monitoring and evaluation over these services by appropriate health personnel.

CONCLUSION

The objective of this study is to estimate the hidden cost incurred by the patient for a vaginal delivery and a Caesarean section delivery at a tertiary level government hospital. This will provide an insight to hidden and real costs involved in provision of maternal health services by the government and to the households availing these services. Information gained from this study can be used to identify areas where costs could be reduced and where output or productivity could be increased. It may be used as a resource tool for financial management in hospitals and for suggesting measures in making maternal healthcare more affordable for BPL families.

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