



IMPACT OF COLLEGE OF PHYSICIANS' AND SURGEONS' COURSES RUN BY GOVERNMENT FACILITIES ON THE UTILIZATION OF MOTHER AND CHILD HEALTH SERVICES AND OUTCOMES: A MIXED METHOD STUDY

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ABSTRACT

Background: "College of Physicians and Surgeons", (CPS) is two-year diploma course for medical graduates in various subjects like Obstetrics and gynecology (OBGY), Pediatric, Ophthalmology, Orthopedics, Anesthesia etc., with the purpose to provide specialist services at village level

Methods: This study was conducted to assess the impact of CPS courses on healthcare services and their outcomes. A Mixed method study; utilizing Qualitative and Quantitative method was employed. Sampling frame included various centers in which CPS courses were initiated in 2018-19. The current study reports impact of CPS course run by two centers of a state based on feasibility. The participants interviewed were; Key Health Personnel, Facility Staff, Community Leaders, Beneficiaries, CPS Students, Bonded CPS Employees.

Observations & Conclusions; Quantitative; The number of deliveries conducted at facility had increased after starting the CPS course but the ratio of LSCS surgery conducted out of total deliveries decreased. The Percentage of referrals (in) out of total admissions, Proportion of complication in ANC cases managed and Number of new born admitted at NBSU/SNCU decreased. Beneficiaries were aware of and were utilizing obstetrics and gynecology services available in the hospital. People from the upper middle class were also availing the services. The clients were fully satisfied with the services available at the facility. Funds from the government were adequate and properly utilized.

Recommendations: There is a need of a specified curriculum and increase in remuneration for the teaching faculty to retain them. Human resources should be increased and vacant posts of specialists be filled so that due to lack of skilled and specialized staff the learning of CPS student is not compromised. The infrastructure needs improvement like doctors' room should be made in labor room. ICU set-up is required to manage the critical patients.

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INTRODUCTION

Background: "College of Physicians and Surgeons", (CPS) is two-year diploma course for medical graduates in various subjects like Obstetrics and gynecology (OBGY), Pediatric, Ophthalmology, Orthopedics, Anesthesia etc., with the purpose to provide specialist services at village level. After completion of the course, candidates have to serve for one-year rural posting mandatory at District Hospital / Sub District Hospital. ⁽¹⁾

This study was conducted to assess the impact of these courses on healthcare services and their outcomes. A Mixed method study; utilizing Qualitative and quantitative was employed. Sampling frame included various centers in which CPS courses were initiated in 2018-19. The current study reports impact of CPS course run by two centers of a state based on feasibility. Variables for facility and analysis of facility output indicators: (from 2017-2021) (Pre and post implementation) were compared. In- depth interviews were conducted to

understand the effect, impact, challenges, bottlenecks, success stories & perceptions using a guideline, carried out under broader themes of: Effect of CPS courses on utilization of maternal child health services; Benefits of CPS courses; Challenges and bottlenecks of CPS trainings; Suggestions for better implementation and Documentation of innovations/ success stories/ good practices. The participants were informed and apprised of the objectives and importance of the study. One moderator conducted the interview and there were two note keepers for putting down the notes. The interviews were recorded after taking informed consent. The interviews lasted for 30- 40 minutes. The notes were transcribed within 24 hours and themes generated are described in the report. The participants interviewed were; Key Health Personnel, Facility Staff, Community Leaders, Beneficiaries, CPS Students, Bonded CPS Employees.

Observations; Quantitative; The number of deliveries conducted at facility had increased after starting the CPS course but the ratio of Cesarean-Section surgery conducted out

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of total deliveries had decreased. The Percentage of referrals (in) out of total admission, Proportion of complication antenatal cases managed and number of new born admitted at Newborn Stabilization Unit (NBSU)/Sick Newborn Care Unit(SNCU) had decreased after starting of the CPS course.

Qualitative; Findings form In-Depth Interviews

Table 1 Good Practices at the two Centers studied

Sr.No.	Good practices	
	Center 1	Center 2
1.	OBGY organizes camp once a month to benefit the catchment area.	Normal deliveries are conducted per month in a <i>Physiological position</i> which is a new concept for a delivery.
2.	Dialysis ward located on 1 st floor of the building is functional and was providing good services to the patients.	Dialysis ward is located on 3 rd floor of the building and is functional since 2014 and on an average in a month 350 dialysis are being carried out.
3.	Ophthalmic unit is working very well and camps for eye surgery like cataract are organized regularly in hospital.	CB-NAAT facility for the RTPCR testing is also available at the facility.

striking in availability of skilled human resources and emergency obstetric services was observed by Sharma J, *et.al.*⁽³⁾ Similar result was seen for CHC by Nair A, *et al* in 2019, at the national-level, WISN differences, they depicted workforce shortages for all considered Human Resource for Health cadres.⁽⁴⁾

Level of Satisfaction at both the centers: Antenatal (ANC) and Postnatal (PNC) mothers were interviewed: It was observed that the clients were fully satisfied with the services available at the facility. They said that complete privacy was maintained by the doctor while examining and they were given 5 to 10 minutes for check-up and they were also explained of when to come for the follow up. Complete privacy was maintained by the doctor while examining. One of the clients said that *“The good aspects of this facility are that all services that me and my family needs are available over here.”* The waiting time was minimum. Good aspects of this facility were doctor and staff’s behavior one of the client said, *“The doctor here is like a God to me, because despite of being referred to various places for delivery, she took up my case and saved my child’s life. I am thankful to her”.*

Table 2 Effect of CPS Course & Facilitating Factors

Sr.No.	Effect of CPS Course		Facilitating Factors	
	Center 1	Center 2	Center 1	Center 2
1.	Due to CPS course, people are aware of and are utilizing obstetrics and gynecology services available in the hospital.	Due to CPS course, people are aware of obstetrics and gynecology services available in the hospital.	Managerial skills of ex-superintendent helped in organizing medical camps every year.	Good co-ordination between the Primary Health Center medical officers and the CPS doctors regarding the patient’s referral and logistics availability.
2.	After the implementation of CPS course, number of normal deliveries and caesarian section deliveries per month has increased.	After the implementation of CPS course, number of normal deliveries and caesarian section deliveries per month increased. Before the CPS course normal deliveries on an average were 50/month That increased to an average 130/month.	Staff of the facility is cooperative and well trained for their work and manage their work effectively.	Staff of the facility is cooperative and well trained for their work and manage the work effectively.
3.	Diploma Child Health(DCH) has led to the development of NBSU, due to which pediatric care had improved.	CPS student said that <i>“local community is aware about this specialist services available in this hospital and we are gaining rapid fame.”</i>	Doctors from Mumbai visit the hospital and operate on patients like prostate surgery, eye surgery, plastic surgery and general surgery.	Team work was their strength and due to CPS course, maternal component of the services, institutional deliveries in particular have shown improvement, referral for the obstetrics and gynecology services were very less
4.	Best performance areas of the facility Maternal care, Wards, Dialysis center; Ophthalmic department	Best performance areas of the facility Maternal care, Wards, Dialysis center, Blood storage facility, Well-equipped OT and Labor room, CB-NAAT facility	Khilkhilat van provides transportation services to Antenatal and Postnatal mothers.	All infection control measures are being followed in the hospital.
5.	People from the upper middle class are also availing the services from the hospital.	Protocol&posters are there around the hospital and in hotspot area of the city about the services available to the people in local language. People from the upper middle class also avail the services from this hospital.	The network of Accredited Social Health Activist, Taluka Health officer (THO) and Sub-district Hospital (SDH) is helping the beneficiaries of the community to avail the services provided at the hospital.	Separate autoclave machines for different units (general Operation Theatre (OT), Ophthalmic OT, Labor room, RTPCR lab). Funds from the government are adequate and properly utilized.

Similar study by Sodani P R, Sharma K (as per Indian Public Health Standards 2010 guidelines) for Community Health centers [CHC]) in Bharatpur district ⁽²⁾ found that infrastructure facilities were available in almost all the CHCs.

Full time specialists to teach DGO and DCH students were not available. Pediatrician visits under CM-SETU, not having full-time pediatrician compromises health care services, findings similar to study by Sodani P R, Sharma K.⁽²⁾ Gaps were most

They provided transportation services for ANC and PNC patients. No improvement was required according to the woman interviewed. Client satisfaction was good in a study by Rashmi *et al.*⁽⁵⁾ Overall the clients were satisfied with the obstetric care received at 24X7 Primary Health Centers (PHC). However, post-natal stay needs to be extended to at least 48hrs in a study by Macwana Jayapraksh kumar, Misra Shobha.⁽⁶⁾

Table 3 Challenges / Weaknesses

Sr. No.	Center 1	Challenges / Weaknesses	Center 2
1.	Due to unavailability of specialist doctors, in case of any complications patients have to be referred to higher centers.	Obstetric Ultrasonography (USGs) was not done in this facility so CPS doctors could not enhance USG skills.	
2.	Infrastructure is poor. Hospital building is 75 years old and weak.	Intensive Care Unit (ICU) set-up is not there in hospital so critical patients were not managed at this facility.	
3.	There is no availability of blood bank.	Regarding the CPS course, after the final Examination, the result comes late and the process of degree registration is slow so bond completion period takes more time.	
4.	Human resource is lacking.	Without the registration CPS students cannot work as specialist.	
5.	There is no accommodation facility for residents.	Infrastructure was poor and weak.	

Table 4 Barriers / Impending Factors & their Impact on services

Sr. No.	Barriers / Impending Factors		Impact	
	Center 1	Center 2	Center 1	Center 2
1.	Full time specialists to teach Diploma Gynecology(DGO) and DCH students are not available. Pediatrician visits under Chief Minister Services of Experts at Treatment Unit (CM-SETU), so no full-time pediatrician available.	Full time specialists were not available.	So that services are compromised in the hospital. Pediatric and OBGY services are suffering. Standard of teaching and learning in CPS program is affected.	So that services are compromised in the hospital.
2.	7 out of 8 residents were deputed to other places.	Pediatrician visits under CM-SETU, and no full time pediatrician is available.	Newborns with complications and children could not be treated and required referral.	Newborns with complications and children could not be treated and required referral.
3.	Low remuneration of the doctors and residents of CPS program.		Doctors are not being retained.	

Table 5 Important Quotes

Sr. No.	List of Quotes
	Quotes from Key health personnel
1.	<i>"The remuneration of the teaching faculty should be increased. A lot of doctors are not continuing with the institute due to low salary"</i>
	Quotes from CPS students
1.	<i>"The staff is rude and misbehaving with the residents, so it is difficult for CPS students to work here, hence all the other residents are taking deputation at the place of their choice and working there."</i>
	Quotes from beneficiaries
1.	<i>"All the services provided here are very good". "The doctor here is like a God to me, because despite of being referred to various places for delivery, she took up my case and saved my child's life. I am thankful to her". "Earlier I was referred to Junagadh civil for Caesarean section due to unavailability of MD OBGY in 2018, but this time doctor madam was there to treat me."</i>
	<i>Team work was their strength and due to CPS course, maternal component of the services, institutional deliveries in particular have shown improvement, referral for the obstetrics and gynecology services were very less.</i>
	<i>"Gynecologist was always available for their learning." "Time availability for study was less as we have more workload." "I am working since one and half year as CPS student in SDH and I am very satisfied from my work as gynecologist and I am learning so many things from faculties, my colleague and nursing staff." "Local community is aware about this specialist services available in this hospital and we are gaining rapid fame." "After the final examination, the result process is late and the process of degree registration is slow so bond completion period takes more time and without the registration CPS students cannot work as specialist.</i>
	<i>"All the services provided here is very good". "The good aspects of this facility is that all services that me and my family needs is available here."</i>

Conclusions: Opinion about overall effectiveness of the programme:

Due to CPS course, people were aware of and were utilizing obstetrics and gynecology services available at the hospital. People from the upper middle class are also availing the services. It was observed that the clients were fully satisfied with the services available in facility. After the implementation of CPS course, number of normal deliveries and caesarian section deliveries per month had increased. The Percentage of referrals (in) out of total admission, Proportion of complication in ANC cases managed and number of new born admitted at NSU/SNCU had decreased after the CPS course. Funds from the government was adequate and properly utilized.

Recommendations/Suggestions

- There is a need of specified curriculum for the teaching faculty. To strengthen the child component, one month pediatrics training should be given to every DGO- CPS course student. So that, CPS doctors can at least resuscitate the baby in emergency conditions and then refer the patient to higher center, this would help in reducing infant mortality. And this training should be given in early phase of DGO Course. At least three months of medical college posting should be given to the students for learning of laparoscopic procedures, obstetric USG, ICU management etc.
- There is need of improved /Increased remuneration to the faculty to retain them. Need a hostel facility for residents. Placement for bond completion at a CHC or higher facility rather than a PHC so that they can utilize their skills properly which would not be possible at PHC.

- Human resources should be increased and vacant posts of specialists are filled so that due to lack of skilled and specialized staff the learning of CPS students as well as patient care doesn't suffer. There should be a staff nurse exclusively for labor room and OT and a security guard at night. There is need for a permanent OBGY faculty and Pediatrics faculty. In admin department, the entire staff was contractual, if permanent staff is appointed the performance would be better.
- The infrastructure needs improvement like doctors' room should be made in labor room. ICU set-up is required to manage the critical patients. There should be one "ASHA Ghar" near the facility so that the ASHA who accompanies beneficiary can stay in the night.

References

1. <https://www.cpsmumbai.org/> (Last accessed 25-05-2022)
2. Sodani P R, Sharma K. Assessing Indian public health standards for community health centers: A case study with special reference to essential newborn care services. *Indian J Public Health* 2011;55:260-6
3. Sharma J, Leslie HH, Regan M, Nambiar D, Kruk ME. Sharma J, *et al.* Can India's primary care facilities deliver? A cross-sectional assessment of the Indian public health system's capacity for basic delivery and newborn services. *BMJ Open*. 2018 Jun 4;8(6):e020532. doi: 10.1136/bmjopen-2017-020532. *BMJ Open*. 2018. PMID: 29866726 Free PMC article.
4. Nair A, Jawale Y, Dubey SR, Dharmadhikari S, Zadey S. Nair A, *et al.* Workforce problems at rural public health-centres in India: a WISN Workforce Indicators of Staffing Needs retrospective analysis and national-level modelling study. *Hum Resour Health*. 2022 Jan 28;19(Suppl 1):147. doi: 10.1186/s12960-021-00687-9. *Hum Resour Health*. 2022. PMID: 35090494 Free PMC article.
5. Rashmi *et al.* Quality assessment of child care services in primary health care settings of central karnataka (davangere district). *Indian J Community Med*. 2010 Jan;35(1):24-8.
6. MacwanaJayaprakshkumar, Misra Shobha. Client's perspective on obstetric care received at 24x7 primary health centers of a district located in western India. *Innovative Journal of Medical and Health Science* 2013; Vol 3, Issue 3, No 1: 136-139.

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