RESEARCH ARTICLE

Does contracting out lead to improvement in service volumes at primary and secondary health services? Evidence from rural districts of Sindh, Pakistan

Imran Naeem Abbasi, Zafar Fatmi, Sameen Siddiqi

Abstract

Objectives: To determine the improvement in service volumes from baseline, if any, in the contracted out primary and secondary healthcare facilities against key performance indicators, and to explore the perceptions of health managers and experience of patients in this regard.

Methods: The mixed-method study was conducted at Aga Khan University, Karachi, from November 2019 to April 2020, and comprised secondary data extracted from the district health information system related to Thatta and Sujawal districts of the Sindh province of Pakistan from July 2016 to June 2019. Apart from data analysis for baseline versus end-line comparison of key performance indicators, the study also comprised of a cross-sectional survey of health facilities, patient exit interviews and in-depth interviews with healthcare managers.

Results: The key performance indicators showed improved service volumes compared to the baseline. All services, including general outpatient department (33%), consultancy services (91%) and emergency services (106%) increased in volumes. Facility-based deliveries increased by 37% and antenatal care visits increased by 100% but immunisation volumes declined. Specialist workforce increased by 47%. Healthcare managers perceived delayed/partial budget release as the key determinant of staff retention, availability of drugs, equipment, supplies, water and electricity at health facilities. Lack of control over government-appointed employees coupled with political interference created workforce shortage. Patients were satisfied with service delivery, but unavailability of medicine was the main concern for 64.3%.

Conclusion: Contracting out showed improvement in service volumes, but lack of autonomy over budget allocation and utilisation, staff appointment and poor coordination among the stakeholders were key barriers to successful functionality. For patients, non-availability of drugs was the major issue.

Keywords: Contracting out, Non-state providers, Pakistan, Rural setting. (JPMA 72: 1947; 2022)

DOI: https://doi.org/10.47391/JPMA.2235

Introduction

Contracting out of health services has been mushrooming as a popular modality of delivering health services in remote rural settings.[1-4] It has been used in countries like Afghanistan, Cambodia, Bangladesh, India, Iran and Pakistan to ensure availability, efficiency and coverage of health services.[5] Pakistan's health system has undergone an extensive contracting out during the past 15 years. Following a nationwide contracting out initiative — the People's Primary Healthcare Initiative (PPHI) — of basic health units (BHUs) in 2005, progressively more primary and secondary healthcare facilities have been contracted out in all the four provinces, including Sindh.[6] While contracting out has been argued to benefit the health systems in various countries,[7] there is a dearth of evidence regarding its impact on health services in the Sindh province. The current study was planned to determine the improvement in service volumes from baseline, if any, in the contracted out primary and secondary healthcare facilities against key performance indicators (KPIs), and to explore the perceptions of health managers and patients satisfaction in this regard.

Department of Community Health Sciences, Aga Khan University, Karachi, Pakistan.

Correspondence: Imran Naeem Abbasi.

Email: imran.naeem2009@gmail.com

Materials and Methods

The mixed-method study was conducted at Aga Khan University, Karachi, from November 2019 to April 2020, and comprised secondary data extracted from the district health information system (DHIS) related to Thatta and Sujawal districts of the Sindh province of Pakistan from July 2016 to June 2019.

The quantitative part included baseline versus end-line comparison on KPIs, and a cross-sectional survey of the health facilities using a validated tool[8] to assess the availability of services, infrastructure, drugs, and supplies. Using purposive sampling, all the contracted-out primary and secondary public-sector healthcare facilities in the two districts were evaluated. These included rural health centres (RHCs), Taluka Headquarter Hospitals (THQHs) and District Headquarter Hospital (DHQH). These were contracted out to a national non-governmental organisation (NGO) in 2016. Both Thatta and Sujwal

districts are predominantly rural and have a population of approximately 1 million each.[9] The population is scattered, and road infrastructure is poor. Health indicators, such as maternal mortality ratio (MMR) and neonatal mortality ratio (NMR) are amongst the worst in the country.[10-13]

Patient exit interviews were conducted using a validated tool[14] to assess their satisfaction with the health services. Selection of the patients was done using purposive sampling where patients in outpatient department (OPD) services were approached and invited for participation in the interviews. At all the health facilities, the number of participants was limited to 5-10 per facility. Exit interviews were conducted in the local Sindhi language by trained data-collectors.

The qualitative part of the study included 10 in-depth interviews (IDIs) with healthcare providers/managers. Grounded theory approach[15] was used to explore their perceptions and experiences regarding barriers and facilitators of contracting out. Following a thorough literature search, a semi-structured IDI guide was developed to explore structural challenges divided into the following domains: health system governance, access to health services, health workforce availability, budgetary issues, and political interference. Purposive sampling was used to select the participants for IDIs which were conducted by an experienced researcher with a background in health systems and qualitative research. The researcher moderated the interviews, while a note-taker took notes. The interviews were also audio taped.

Informed verbal and written consent was obtained from all study participants and permission from district health authorities was obtained prior to conducting the study.

Quantitative data was entered into Microsoft Excel 2016. Descriptive statistics were run, and frequencies and percentages were calculated for categorical variables. For qualitative analysis, data from IDIs was transcribed and translated from the Sindhi language to English. All transcripts were read through, and brief notes were made. Following manual content analysis, the responses were grouped and compared. Similar responses were merged to generate themes. The findings from qualitative and quantitative components were validated through triangulation.

Results

Of the 13 health centres, 8(61.5%) were RHCs; 6(75%) in Thatta and 2(25%) in Sujawal). There were 4(30.8%) THQHs; 1(25%) in Thatta and 3(75%) in Sujawal. Besides, there was 1(7.7%) DHQH in Thatta. Exit interviews were

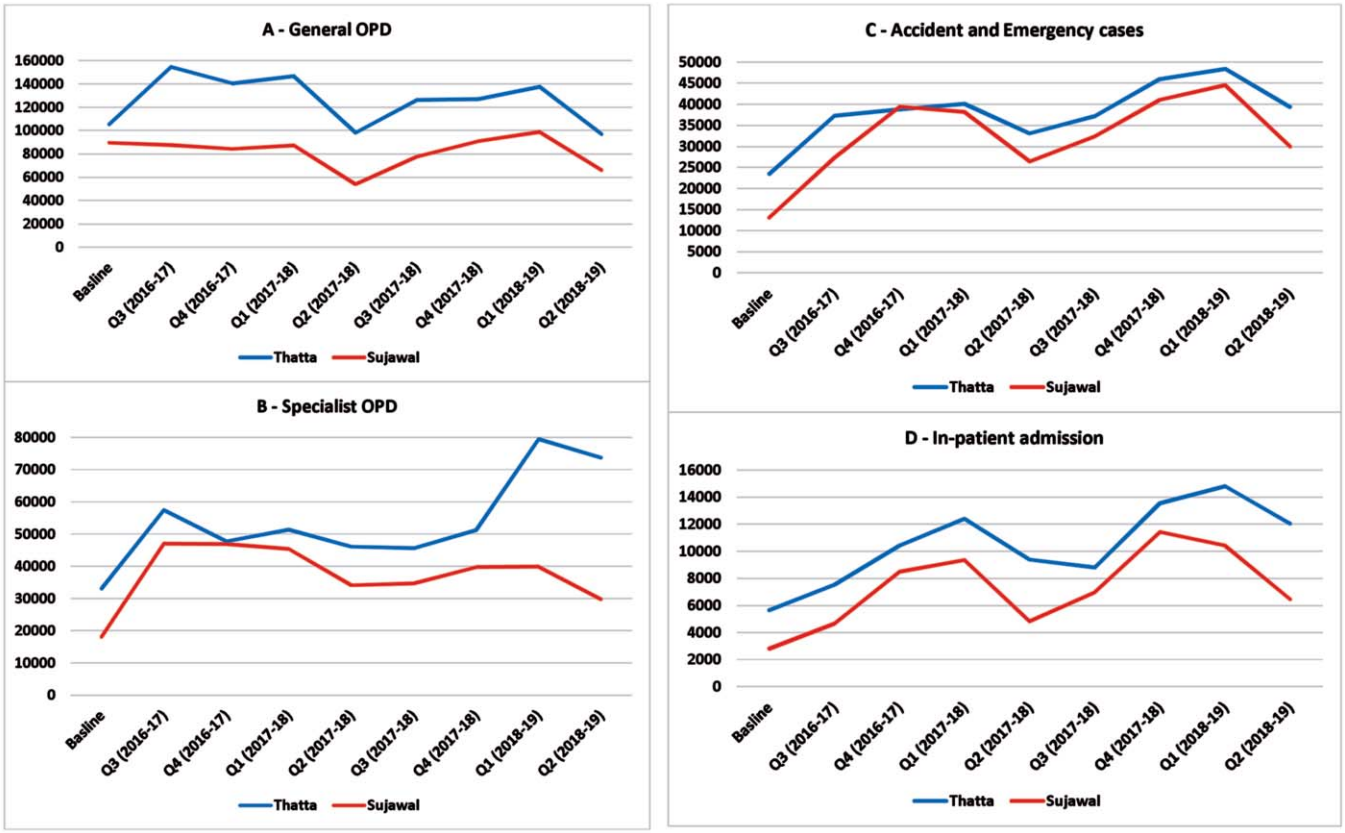

Figure-1: Trends of out-patient department (OPD) consultations and inpatient admissions in Thatta and Sujawal districts during the contracting-out period.

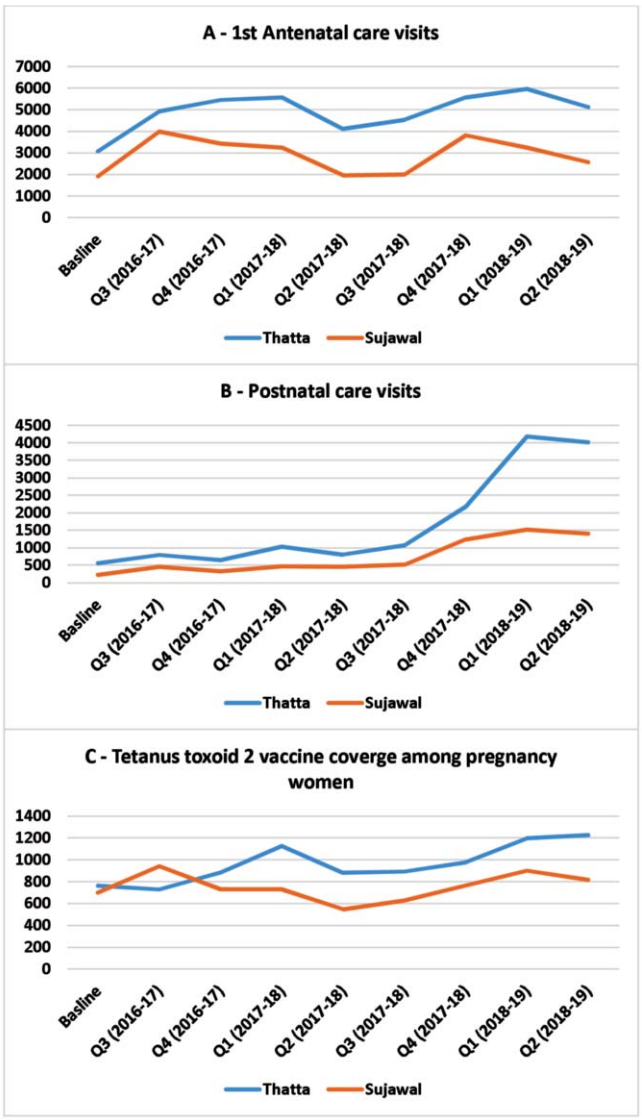

Figure-2: Trends in antenatal care (ANC), postnatal care (PNC) and tetanus toxide (TT) vaccine for pregnant women in Thatta and Sujawal districts during the contracting-out period.

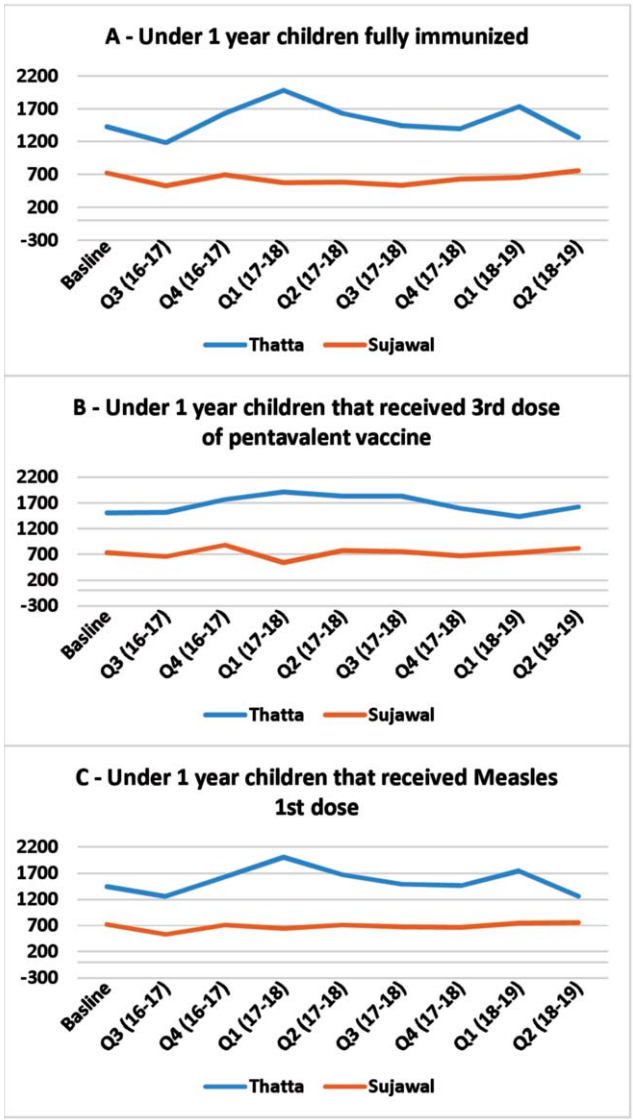

Figure-3: Trends in immunisation for children under 1 year of age in Thatta and Sujawal districts during the contracting-out period.

conducted with 95 patients.

DHIS data showed there was overall improvement in service volumes from the baseline in the contracted-out healthcare facilities. Moreover, improvements were greater in Thatta compared to Sujawal district in all KPIs. An overall improvement of 33% was observed in OPD consultations, a noticeable progress of 91% in specialist consultations, and 106% in accident and emergency consultations compared to the baseline. In-patient admissions also showed an upward trend (Figure-1). Despite overall improvement, the volume of OPD consultations showed a decline in the month of June each year, which is the last month of the fiscal year.

Facility-based deliveries, both vaginal and caesarean section (CS), increased 36% and 49% respectively with an overall improvement of 37%. However, most of the CS procedures were reported from Thatta.

Marked improvement of 100% from the baseline was seen in 1st antenatal care (ANC) visits, but there was little improvement in postnatal care (PNC) visits until after two years when PNC visits improved noticeably. There was an overall increase of 19% in the proportion of pregnant women receiving 2nd tetanus toxoid (TT) vaccine dose and the increase was prominent in Thatta, while it showed a decline in Sujawal (Figure-2).

Immunisation indicators for children under 1 year of age showed a decline as the number of children fully

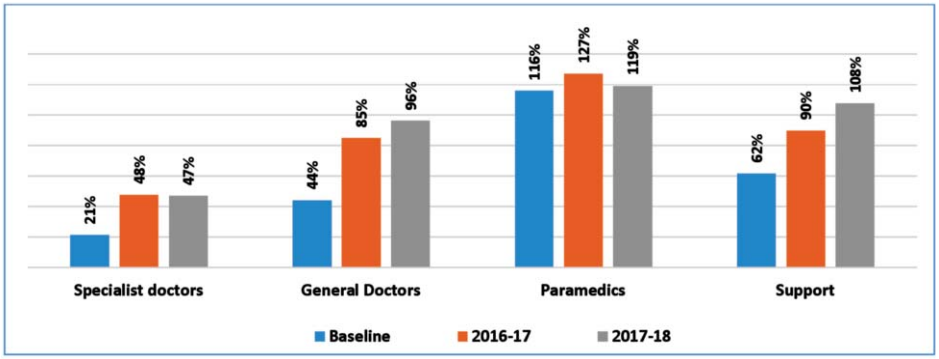

Figure-4: Change in staffing situation of healthcare facilities in Thatta and Sujawal districts during the contracting out period.

immunised, immunised for the third dose of pentavalent vaccine and 1st dose of measles vaccine indicated a downward trend for the contracted-out period (Figure-3).

Overall, healthcare facilities of district Thatta showed greater improvements in service volumes compared to those of Sujawal district. Service volumes at DHQH Thatta, the only DHQH in the two districts, showed the most increase in volumes. Though there was improvement in most services at THQHs of both the districts, THQHs of Sujawal showed a decline in immunization services.

Almost all RHCs showed improvement in OPD consultations, ANC and PNC visits, whereas institutional deliveries and immunisation showed declining patterns.

With respect to the health facility assessment survey, there was no baseline data available for bed capacity, drugs, equipment and supplies and infrastructure, and, hence, these were assessed for adequacy.

At both the RHCs and the secondary hospitals, the bed-to-population ratio was low and more so in Thatta than Sujawal. Among the 8 RHCs, the average number of beds was 13 (range: 5-20 beds). Among secondary hospitals, those in Thatta had the highest bed strength compared to Sujawal with 242 beds in DHQH in Thatta. In Sajawal, the number of beds in THQHs ranged 16-98.

Though most of the essential drugs were present at majority of the RHCs, essential anticonvulsant and anti-epileptics were out of stock at all RHCs. The second most important group of drugs found deficient were anti-diabetics. For all the THQHs in both the districts, most of the essential drugs were in stock, while antidotes, anti-allergic, respiratory and eye and ear medications were out of stock at the time of the survey.

General medical equipment and supplies were available at most RHCs, but the availability of radiology equipment, such as X-ray and ultrasound machines, were non-existent in some RHCs. A functional operation theatre (OT) was available at 3(60%) secondary hospitals.

Of all the healthcare facilities, 9(69.2%) needed repairs. Almost half of the healthcare facilities had a proper waste disposal mechanism, but an equal number lacked pit incinerators. Non-availability of safe drinking water was found at 5(38.5%) facilities. DHQH Thatta was the only hospital that received the most attention in terms of infrastructure improvement.

Overall, staffing situation improved significantly in both the districts as recruitment for all cadres, including specialists, general doctors and support staff, was done against vacant positions (Figure-4). However, the shortage of human resources persisted at secondary hospitals, particularly in Sujawal. Similarly, the number of vaccinators at all the 8(100%) RHCs, though appropriate against sanction positions, was not adequate given the low immunisation coverage.

For all the three fiscal years, not only there was a delay in the release of the budget, but the budget amount released was lower than the committed amount. In 2016-17, 72% of the committed amount was released. This was even lower in subsequent years i.e., 64% and 58% for 2017-18 and 2018-19, respectively. When broken down by line items, human resource budget released for each fiscal year was even lower i.e., 34%, 66% and 57% for years 2016-17, 2017-18 and 2018-19, respectively. Given the increase in numbers using OPD and other services, budgetary issues affected the services negatively.

Exit interview participants comprised of 58 females and 40 males (total 98). More than 60% patients said they were satisfied with the services. About 50% of patients said they had seen improvement in services, whereas 60% said there had been infrastructure improvement at the healthcare facilities in the preceding two years. the availability of medicines at the facilities was a major problem for approximately 64% of the patients, and about 34% were unhappy with the level of cleanliness at the facilities. For about 48% clients, privacy during physical examination was an issue, while 53.1% said there was no privacy during consultation. About 27.6% were unhappy with the behaviour of staff, while 23.5% were not satisfied with the explanation about health issue provided by the staff. About 96% of patients said they did not have to pay for the services at the healthcare facilities (Table).

The IDIs in the qualitative part of the study brought to light a number of issues that were identified by the

Table: Patient exit interviews at healthcare facilities to assess satisfaction with health services in Thatta and Sujawal (n=98).

	Major problem (%)	Minor problem (%)	No Problem (%)
Ability to discuss problems or concerns	20.4	18.4	61.2
Amount of explanation you received about the problem or treatment	23.5	22.4	54.1
Privacy from having others see the examination	48	16.3	34.7
Privacy from having others hear your consultation discussion	53.1	16.3	30.6
Availability of medicines at this facility	64.3	17.3	18.3
The hours of service at this facility i.e. when they open and close	13.3	30.6	56.1
The number of days services are available to you	9.2	31.6	59.2
The cleanliness of the facility	35.7	28.6	35.7
How the staff treat you	27.6	13.3	59.2
Costs for services or treatments	13.3	28.6	58.1

medical and managerial staff at the healthcare facilities.

Delayed and partial release of the budget was stated as the major challenge in maintaining day-to-day operations and paying timely salaries to the staff.

"Not only that the budget release is delayed, but that too we get in bits and pieces." (IDI - health manager)

Health managers attributed issues, such as stock-outs of drugs and supplies, or difficulties in equipment maintenance, as the outcome of the delayed and partial budget release.

Availability of qualified human resource was stated as the second major barrier to maintaining continuity of services. Being rural districts with 82% population living in rural areas, the literacy rate of the districts was already low. Health managers said they had to hire non-native healthcare professionals on a contract basis who were only available on specific days of the week. Since contracting-out was for an initial period of three years, hence, it was not possible to offer long-term contracts to employees who were on the payroll of the non-state provider (NSP). This resulted in job insecurity and, hence, increased staff turnover.

Lack of control over government-managed staff was also stated as a concern by the health managers. Appointments made by the government in the health facilities of both the districts were affected by deputation i.e., healthcare professionals hired to work at a health facility in these districts were permitted to work in a different district while their actual salary was drawn from the same district's budget where they were originally appointed. This resulted in hiring that was not useful to the population of the district, while still being a burden on the district's health resources.

"Since government-managed staff is paid by the government, hence, their accountability does not lie with us, and often their transfers are done without consulting us." (IDI - health manager)

Deployment of staff at health facilities in a remote rural setting was not without political interference, said the health managers.

"This is a rural district, and we need to ensure that doctors are available in remote health facilities, but it is not always easy." (IDI - health manager)

Being remote, some areas had poor road infrastructure and poor transport services, making maternal health services available at the nearby health facilities required the presence of female doctors regardless of the time of the day.

"I received a phone call one morning from a politician regarding a female doctor and I was asked to spare her from doing night duties." (IDI - health manager)

Though contracting-out of health services led to improved service volumes, the involvement of multiple NSPs within the same district has not been accompanied by concurrent measures to ensure coordination. Both in Thatta and Sujawal districts, BHUs were contracted out to one NGO, while RHCs and secondary hospitals were handed over to another NSP, and the vertical programmes, such as immunisation and lady health workers (LHW) programme fell in the domain of the government's district health office (DHO). There was a lack of reporting lines and communication channels among the service providers.

Discussion

The current study showed that there was a significant increase compared to the baseline in the service volumes at contracted-out healthcare facilities. However, preventive services, such as immunisation, showed inconsistent results with decline at most of the healthcare facilities. Most patients were satisfied with the health services. Structural challenges, including budgetary issues, political interference and staff retention, were the major hurdles during the contracting-out period.

The increase in service volumes was seen across a range of

services, including OPDs, maternal health services and diagnostic services. Studies on contracting-out experiences from countries, such as Malawi,[16] India[17] and Cambodia,[18] have reported similar increase in service volumes. In the current study, improvements were most noticeable in maternal health services, including ANC and PNC visits and institutional deliveries. These increases were accompanied by an increase in human resources, such as female medical officers and gynaecologists/obstetricians. Similar increases have been reported from developing countries, showing an emphasis on the contracting-out model in terms of improving maternal health.[16-18] Immunisation services received little attention as reflected in the declining volumes. The finding is consistent with those from Malawi and Guatemala.[16-19] While this might indicate an abundance of focus on curative care, it could also be attributed to incoherence amongst NSPs and DHO office. Immunisation and LHW programme, the two programmes with community health workers (CHWs) having responsibility for outreach vaccination of under five children, fell in the domain of DHO office, and, hence, were not part of the contracting-out arrangement. These CHWs, while stationed at the contracted-out healthcare facilities, were not in a reporting relationship with the NSP and, hence, not accountable.

Unexplained delays in timely and adequate release of the budget were stated as a key underlying determinant of problems, such as staff retention, and uninterrupted availability of drugs and supplies, particularly towards the end of each fiscal year i.e., the month of June. The impact of low budget towards the end of the fiscal year was evident not just on the availability of medicines and human resources, but also on the decrease in OPD volumes.

Being a low spender on health, Pakistan's contribution to health as percentage of gross domestic product (GDP) is already low.[20] Hence, budget allocation to health facilities also remains insufficient. Many of the health managers were concerned about delays and progressive reductions in the annual budget, and considered these as politically-driven. Many considered that the contracting-out of health services to NSPs was not perceived positively at the higher levels. Health managers also mentioned political interference in hiring and firing of staff prying with staff accountability. Lack of control over government-appointed employees was also a consequence of external influence that led to their transfers and appointments without giving due consideration to districts' human resource needs. Given the delayed release of salaries and contractual nature of employees hired by the NSPs, staff turnover was a persistent challenge. Combined, both these issues resulted in workforce deficiency as a constant ordeal throughout the contracting-out period. Studies from countries experimenting with contracting-out modalities in health, such as Afghanistan and Tanzania, have reported political interference as a key challenge for NSPs.[21,22]

Patient satisfaction was high as the majority expressed satisfaction over availability, responsiveness, and cost of health services. Though the study did not compare patient satisfaction with those at government managed facilities, literature shows higher satisfaction among patients receiving care from contracted-out health facilities.[23,24] While majority of the patients were concerned about the non-availability of medicine, and this corroborated with IDIs showing high demand for medicine by the patients, about one-third of patients in the current study showed dissatisfaction with the behaviour of health facility staff. Literature shows that the quality of interaction between healthcare providers and patients is an important determinant of client satisfaction in some countries and may supersede patients' demand for medicines.[25] Privacy during consultation and physical examination has enormous influence on satisfaction related to services, and literature shows that patients having privacy and confidentiality are more satisfied.[26] About 34% expressed dissatisfaction over health facility's cleanliness in the current study, which is consistent with the findings of a study in Ethiopia.[27]

The current study showed that contracting-out has the potential to improve service volumes in remote rural settings, but having autonomy over budget release and staffing, and the authority to transfer and appoint government employees are important determinants of the success of the contracted-out health services. There is a need to improve coordination among all the stakeholders, including the NSPs, the government and the community. Increases in volumes of contracted-out services warrant bringing the immunisation services also under the umbrella of the same model to enhance immunisation coverage. Finally, patient satisfaction survey showed there was a need to improve cleanliness at the health facilities, improve patient privacy and ensure availability of medicines.

The current study had some methodological limitations. Since data on KPIs was extracted from the DHIS, it was not possible to comment on the quality of data. However, data validation was performed through field verification and survey of the health facilities to ensure data accuracy. Due to lack of baseline data, some components, like bed capacity, drugs, equipment and infrastructure, could be assessed for adequacy only. While most studies, including those from Pakistan, have focussed on the contracting out of primary healthcare facilities,[18,22,28] the current study has assessed the phenomenon in both primary and secondary healthcare facilities in two rural districts.

Conclusion

The practice of contracting out healthcare facilities did show improvement in service volumes, but lack of autonomy over budget allocation and utilisation, staff appointment and poor coordination among the stakeholders were key barriers to success of contracting out model. For patients, the non-availability of drugs was found to be the major concern.

Disclaimer: The text is part of a larger project, titled: "Health Systems Strengthening for Improving Coverage and Quality: Capacity building, Health Surveillance and Targeted Interventions — Rural Health Programme Thatta". The approval of the institutional ethics review board was taken for the original study.

Conflict of Interest: None.

Source of Funding: The Medical Emergency Resilience Foundation.

References

1. Odendaal WA, Ward K, Uneke J, Uro-Chukwu H, Chitama D, Balakrishna Y, et al. Contracting out to improve the use of clinical health services and health outcomes in low- and middle-income countries. Cochrane Database Syst Rev 2018; 4: CD008133.
2. Preker AS, Harding AL. Private participation in health services.In;Preker AS,Haring AL,eds.Washington D.C, USA; The World Bank; 2003.
3. Palmer N. The use of private-sector contracts for primary health care: theory, evidence and lessons for low-income and middle-income countries. Bull World Health Organ 2000; 78: 821-9.
4. Perrot J. Different approaches to contracting in health systems. Bull World Health Organ 2006; 84: 859-66.
5. Siddiqi S, Masud TI, Sabri B. Contracting but not without caution: experience with outsourcing of health services in countries of the Eastern Mediterranean Region. Bull World Health Organ 2006; 84: 867-75.
6. Health Department Government of Sindh Pakistan. Public Private Partnership Initiatives. [Online] 2020 [Cited 2020 Oct 1]. Avaialable from: URL: https://www.sindhhealth.gov.pk/Partnerships.
7. Loevinsohn B, Harding A. Buying results? Contracting for health service delivery in developing countries. Lancet 2005; 366: 676-81.
8. World Health Organization. Service Availability and Readiness Assessment (SARA). [Online] 2013 [Cited 2020 Oct 15]. Available from: URL: https://www.who.int/healthinfo/systems/SARA_Reference_Manual_Full.pdf.
9. Population of Bearu of Statistics Pakistan. Provisional summary results of 6th population and housing census-2017 [Online] [Cited 2020 Oct 1]. Available from: URL: http://www.pbs.gov.pk/content/provisional-summary-results-6th-population-and-housing-census-2017-0.
10. World Health Organization. Maternal mortality in 1990-2015. [Online] 2015 [Cited 2020 Oct 10]. Available from: URL: https://www.who.int/gho/maternal_health/countries/pak.pdf?ua=1.
11. Pasha O, Saleem S, Ali S, Goudar SS, Garces A, Esamai F, et al. Maternal and newborn outcomes in Pakistan compared to other low and middle income countries in the Global Network's Maternal Newborn Health Registry: an active, community-based, pregnancy surveillance mechanism. Reprod Health 2015; 12 Suppl 2(Suppl 2): S15.
12. UN Inter-agency Group for Child Mortality Estimation. Nonatal mortality rate Pakistan. [Online] 2020 [Cited 2020 Oct 15]. Available from: URL: https://childmortality.org/data/Pakistan.
13. United Nations Children Emergency Fund. Sindh Multiple Indicators Cluster Survey (MICS). [Online] 2014 [Cited 2020 Oct 15]. Available from: URL: https://mics.unicef.org/news_entries/56/PAKISTAN-(SINDH)-2014-MICS-FINAL-REPORT-&-DATASETS-RELEASED.
14. The DHS Program. Quesionnaires and Modules. [Online] 2020 [Cited 2020 Oct 15]. Available from: URL: https://dhsprogram.com/What-We-Do/Questionnaires.cfm.
15. de la Espriella R, Gómez Restrepo C. Grounded theory. Rev Colomb Psiquiatr (Engl Ed) 2020; 49: 127-33.
16. Zeng W, Sun D, Mphwanthe H, Huan T, Nam JE, Saint-Firmin P, et al. The impact and cost-effectiveness of user fee exemption by contracting out essential health package services in Malawi. BMJ Glob Health 2019; 4: e001286.
17. Baqui AH, Rosecrans AM, Williams EK, Agrawal PK, Ahmed S, Darmstadt GL, et al. NGO facilitation of a government community-based maternal and neonatal health programme in rural India: improvements in equity. Health Policy Plan 2008; 23: 234-43.
18. Vong S, Raven J, Newlands D. Internal contracting of health services in Cambodia: drivers for change and lessons learned after a decade of external contracting. BMC health Serv Res 2018; 18: 375.
19. Danel I, La Forgia FM, Forgia GML, Bank World. Contracting for basic health care in rural Guatemala: comparison of the performance of three delivery models. Health Systems Innovations in Central America: Lessons and Impact of New Approaches 2005: 49-88.
20. World Health Organization. Countries: Pakistan [Online] 2020 [Cited 2020 Oct 15]. Available from: URL: https://www.who.int/countries/pak/en/.
21. Salehi AS, Saljuqi ATK, Akseer N, Rao K, Coe K. Factors influencing performance by contracted non-state providers implementing a basic package of health services in Afghanistan. Int J Equity Health 2018; 17: 128.
22. Maluka S. Contracting Out Non-State Providers to Provide Primary Healthcare Services in Tanzania: Perceptions of Stakeholders. Int J Health Policy Manag 2018; 7: 910-8.
23. Liu X, Hotchkiss DR, Bose S. The effectiveness of contracting-out primary health care services in developing countries: a review of the evidence. Health Policy Plan 2008; 23: 1-13.
24. Riaz A, Zaidi S, Khowaja AR. Perceived barriers to utilizing maternal and neonatal health services in contracted-out versus government-managed health facilities in the rural districts of Pakistan. Int J Health Policy Manag 2015; 4: 279-84.
25. Ameli O, Newbrander W. Contracting for health services: effects of utilization and quality on the costs of the Basic Package of Health Services in Afghanistan. Bull World Health Organ 2008; 86: 920-8.
26. Sufiyan MB, Lawal SO, Suleiman N. Client Satisfaction with Quality of Antenatal Care Services among Attendees of University Health Services Medical Center, Ahmadu Bello University Zaria, Kaduna State Nigeria. J Med Basic Sci Res 2021; 2: 127-40.
27. Worku M, Loha E. Assessment of client satisfaction on emergency department services in Hawassa University Referral Hospital, Hawassa, Southern Ethiopia. BMC Emerg Med 2017; 17: 21.
28. Zaidi S, Riaz A, Rabbani F, Azam SI, Imran SN, Pradhan NA, et al. Can contracted out health facilities improve access, equity, and quality of maternal and newborn health services? Evidence from Pakistan. Health Res Policy Syst 2015; 13 (Suppl 1): 54.