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RESEARCH ARTICLE

UNDERSTANDING THE COMMON RATIONALES ADOPTED IN HEALTHCARE PRICE SETTING ACROSS THE PRIVATE HEALTHCARE SECTOR IN SRI LANKA: A QUALITATIVE STUDY

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ABSTRACT

BACKGROUND / OBJECTIVES

The Sri Lankan healthcare system consists of public and private sectors. In terms of capacity, the public sector dominates the provision of care across curative, preventive and outpatient care. The private sector, too, has grown rapidly in recent years but was mainly confined to providing curative, diagnostic and outpatient care. Since, there are little or no studies conducted in Sri Lanka thus far, the objective of this study was to understand the current approaches adopted in determining the base of healthcare payments. This study also investigated the economic and administrative processes involved in determining the level of healthcare pricing in the private sector healthcare industry in Sri Lanka.

METHOD

This qualitative study investigated the rationales adopted in healthcare pricing by healthcare administrators in the private sector. Structured interviews and thematic analysis were applied for data collection and analysis.

RESULTS

Five key themes which influenced pricing were identified from the interviews. These themes included influence from the practisingclinicians, competitor pricing, price adjustment/profit margins, consumables and human resource cost and economic demands. There was a consensus that competitor pricing and seniority of the practicing clinicians had an impact on pricing strategy.

CONCLUSION

This study revealed that the base of payment in private sector healthcare is fees for services (FFS). Adopting popular international approaches such as diagnostic related groups (DRGS) was not evident in this study. Further, it was evident that the Sri Lankan private healthcare sector administrators unilaterally fix pricing based on the identified key themes without adequately consulting the healthcare payers and users.

KEYWORDS

Sri Lanka, Qualitative analysis, Private sector, Healthcare, Economics

INTRODUCTION

HEALTHCARE LANDSCAPE IN SRI LANKA

The health system of Sri Lanka consists of both public and private healthcare sectors. The public sector bears the bulk of the burden on delivering healthcare services to a population of nearly 22 million people. A total of 643 public sector hospitals, with a bed capacity of 86,589, facilitated 7.477 million inpatient admissions in 2019 [1]. Contrastingly, the total number of private medical institutions has grown from 800 in 2015 to 1432 in 2019, out of which 111 are private hospitals, nursing homes and maternity homes [1]. According to the 2017 Annual Health Bulletin issued by the Ministry of Health, Sri Lanka, 106 private hospitals, nursing homes and maternity homes accounted for 4686 beds, which is 5.41% of the public sector bed capacity [2].

HEALTHCARE FINANCING IN SRI LANKA

Healthcare financing in Sri Lanka is predominantly through the government and associated agencies (GAA) and out of pocket payments (self-payments) made by households. The Sri Lankan public health system is fully funded and governed by the state and provincial councils. In 2014 total expenditure on health (TEH), which included funding and maintenance of public and private sector healthcare systems, costed USD 2.86 billion and by 2019 the same increased by 19.7% to USD 3.42 billion. Contribution from government and associated agencies (GAA) was 44% in 2014 and 46% in 2019 respectively. Private sources contribution on TEH was 52% in 2014 and 51% in 2019.TEH was 3.60% of the national GDP in 2014, and in 2019 it rose to 4.05% [3,4,5].

With a national GDP of USD 84.5 billion and a per capita income of USD 3815 in 2021 [4], Sri Lanka has been ranked as a middle-income country [,5]. Middle-income countries represent more than 70% of the world's population and a large share of the disease burden [6,7]. As a result, Sri Lanka is experiencing an increase in GAA spending on public sector healthcare, where USD 1.26 billion in 2014 had increased to USD 1.58 billion in 2019 [4].

Internationally many countries are introducing new ways to finance, organize and deliver healthcare. Understanding the methods for price-setting takes on a higher level of importance where systems are rapidly changing to account for increasing levels of resources and changing patient needs [6].To align payments with the costs healthcare providers are incurring in delivering different types of healthcare services, many countries are modifying the basis of payments for healthcare providers from line-item budgets to alternatives such as fees for services and diagnosis-related groups [6].

PRIVATE HEALTH SECTOR IN SRI LANKA

The Private health sector in Sri Lanka predominately concentrates on curative services rather than preventive healthcare and outpatient services [8]. Providers range from smaller medical clinics to larger secondary care general hospitals and are heavily concentrated in urban areas. Despite a free public health system, many Sri Lankans seem to be getting more attracted to the services offered by private health institutions. The rapid growth of 800 private medical institutions from 2015 to 1432 in 2019 provides ample evidence of this phenomenon [1].

In 2019, private spending on healthcare was USD 1.76 billion, which is 51.4% of total health spending in Sri Lanka. Out of pocket expenditure (self-payers) is the main source of finance for private health spending in Sri Lanka. In 2014 it accounted for 93.2%, and in 2019 it stood at 88.7% of total private expenditure on healthcare. In addition to the 88.7% contribution from self-payers in 2019, 7.2% contribution came from corporate employers, while private health insurance contribution was only 3.8% [4]. During the year 2019 USD 1.56 billion spent by the out-of-pocket payers accounted for 45.6% of the total health care spending in Sri Lanka.

With the increased utilization of private sector healthcare services, various qualitative factors and service-related issues associated with the healthcare delivery system (within the private sector) have become common debating points among the general public. One of the main concerns patients have expressed in recent years is the price, or the fees patients have to pay out-of-pocket. In middle-income settings, high prices charged in the private sector can undermine universal health care objectives by draining resources allocated for the public sector, where most of the population access services [6,9].

PRICE SETTING IN HEALTHCARE SERVICES

Studies conducted by Reinhardt identified three main dimensions of payment methods for healthcare services [6,10, 11,12,13].

- The base or unit of activity upon which prices are defined and paid
- The level of the payment or price per unit of the chosen base

- The administrative and economic process by which that price level is determined

Internationally many common approaches prevail in determining the base of payments. These approaches can be broadly classified as Budgetary, Activity-based, Population-based, Consolidated and Incremental [6,14,15,16]. Under each approach the following categories are commonly used [6,12,13,17,18,19,20,21].

- Budgetary approach
  - line-item budgeting
  - global budgets
- Activity-based approach
  - Fee for service (FFS)- Method pays fixed payment for each unit of service without regarding the outcomes. It is usually paid retrospectively by billing for each service or patient encounter [6].
  - Diagnosis-related groups (DRG) - Where payments paid to hospital per admission or discharge, whereby patients are classified into groups based on diagnosis and procedures [6].
  - Per diem
- Population-based
  - Capitation payments
  - Consolidated approach Bundled episode and global capitation
- Incremental approach
  - Pay for performance

Once the base for payment is established, there is an administrative and economic process by which prices are determined. These processes can be classified under three major groups [6].

- Individual negotiations between providers and payers - Healthcare prices are agreed upon through individual negotiations between health insurers/self-paying patients and providers of healthcare services
- Collective Negotiations - Negotiations between associations of providers and payers
- Unilateral administrative price setting by a regulator

OBJECTIVE OF THIS STUDY

There has been little to no qualitative studies investigating the above approaches in healthcare price setting in Sri Lanka. As a result, it was decided to investigate, the common rationales adopted in healthcare price setting across the private healthcare sector in Sri Lanka.

METHODS

RESEARCH DESIGN

This method followed the consolidated criteria for reporting qualitative research (COREQ) [22]. Since no published Sri Lankan studies discussed the common rationales adopted for healthcare pricing, the methodological orientation was central phenomena [23]. Attitudes were conceptualised along with behaviour, beliefs, experience, and how it affected private sector healthcare.

The principal researcher (a qualified male dentist with experience in health administration in Sri Lanka) undertook one-on-one structured interviews with the respective chief executive officers or medical directors of private hospitals in Sri Lanka. The interviewer did not have any involvement in influencing healthcare pricing in private sector healthcare in Sri Lanka. This did minimise any form of bias when conducting the interviews.

DATA COLLECTION

During the interview, the following open-ended questions were asked:

1. How do you determine pricing in your hospital? [Open-ended]
2. Do you have a pricing list for various procedures, investigations, and room rates within your hospital? [Close-ended]
3. How often do you change pricing within your hospital? [Close-ended]
4. What are the factors that influence price changes? [Open-ended]
5. What is the role played by the practicing doctors in determining the price? [Open-ended]
6. How often do you look at competitor pricing when determining your healthcare pricing? [Close-ended]
7. Do you have a mechanism to determine the relationship between the price charged to the patient and the cost incurred to perform the procedure? [Open-ended]

Each interview took approximately 20-30 minutes and was delivered either by telephone or zoom due to the current coronavirus (COVID-19) pandemic in Sri Lanka. The recordings were transcribed and de-identified. The principal investigator and a co-investigator did the verification of the transcriptions.

SAMPLING AND RECRUITMENT

A purposive sample of health care administrators (chief executive officers or medical directors) at the private hospitals in Sri Lanka was undertaken. Following the informed consent of the participants, structured interviews were carried out. Participants had the choice of withdrawing from the project without any disadvantage to them. There was no pre-existing relationship between the interviewer and the interviewees. The recording was imported to a qualitative data management programme NVivo 12 (QSR International) for analysis.

The information obtained on the frequency of price change and referral to competitor pricing by the Sri Lankan private hospitals was then tabulated as it was mainly close ended. A thematic analysis was conducted following the methodology suggested by Braun & Clarke [24]. The main themes were coded, and the qualitative result was generated to determine potential common factors. Initial quality assurance was undertaken throughout the analysis by both principal and co-investigators. All authors discussed and reviewed the initial analysis and emergence of central themes until a consensus was reached. In addition, a word cloud was generated to create the most utilised words.

ETHICS

Ethical approval for this study was obtained from The University of Western Australia Human Ethics Committee [Reference Number: RA/4/20/5484].

RESULTS

Representatives from nine different private hospitals in Sri Lanka were recruited [H1 to H9]. Since no further information emerged beyond nine representatives, it was apparent that data saturation was achieved. The selected representatives were key decision-makers within these hospitals on healthcare pricing decisions. These nine hospitals represented approximately 54% of the private sector bed capacity in Sri Lanka. [1,2] Also, three of these hospitals have private hospital chains across the country. As a result, these three hospital chains practice a common pricing policy across their own hospitals.

All the representatives stated that they had the pricing list for various procedures, investigations, and room rates within their hospitals. Except for two hospitals [H1 and H9], all the hospitals changed their pricing ranging between every three to twelve months (Table 1). Three hospitals had frequent weekly monitoring of their competitor pricing [H2, H6, H8]. All the other hospitals referred to their competitor's pricing ranging between every six to twelve months.

TABLE 1 - FREQUENCY OF PRICE CHANGE AND REFERRAL TO COMPETITOR PRICING IN SRI LANKA PRIVATE HOSPITALS

Hospital	Frequency of price changing	Frequency of referral to competitor pricing
H1	Periodical	Every year
H2	Every six months	Frequent - Unspecified
H3	Every six months	Every six months
H4	Every three months	Every six months
H5	Every year	Every year
H6	Every six months	Every month
H7	Every six months	Every six months
H8	Every year	Monitoring - Every week Review - Every three months
H9	Periodical	Periodical

THEMATIC ANALYSIS

Five key themes arose from the interviews: influence from the medical practitioners/clinicians, competition, price adjustment/profit margins, consumables and staff, and economic demands. Words of the most common phrases were highlighted in figure 1.

FIGURE 1 - WORD CLOUD OF THE MOST COMMON PHRASES

INFLUENCE OF PRACTICING CLINICIANS

All the respondents stated that there was little to some influence of practicing clinicians affecting the price. However, it seems to have a more significant influence in terms of seniority.

> *"Some consultants, especially the top consultants, sometimes request the hospital to keep the prices below certain amounts, and on certain occasions, the hospital decides its price based on the professional fee component of the consultant" [H3]*

> *"Senior consultants have an increased influence on the fees they charge" [H9]*

Practicing clinicians who generate more revenue and are involved in surgical procedures exert significant influence on pricing decisions

> *"High revenue-generating doctors play an important role in determining the prices of surgical or treatment packages" [H5]*

Supply and demand also play a crucial factor in the adjustment.

> *"…demand for the medical consultants' professional services…availability of the medical consultant" [H6]*

However, hospitals have flexibility when it is justified to the necessary personnel.

> *"Generally, very little influence is made to adjust prices unless justified to maintain competitiveness" [H4]*

Demand for a practicing clinician would influence their bargaining power on pricing.

> *"Depending on the demand for the doctor, he or she has the leverage to decide on their fees" [H9]*

Some practicing clinicians change the fees without informing the hospitals.

> *"Sometimes practicing clinicians change their fees without informing the hospital" [H2]*

COMPETITOR PRICING

Competition plays a key role in price adjustments within private hospitals. Therefore, certain hospitals refer to their existing competitors to ensure they are within favourable pricing levels.

> *"Pricing is done based on a competitive study of charges levied by hospitals and other types of healthcare institutions, especially of the same category and scale of operation" [H4]*

For certain hospitals, it is not about the competition.

> *"…complete price list for each procedure, investigation and room rates and these are displayed as per the ministry guidelines" [H3]*

It appears that some hospital administrators utilise a business model to engage in price adjustments.

> *"Overall charge to the patient and the ratio of consultants fees is also frequently analysed to maintain competitiveness and gross contribution" [H4]*

PRICE ADJUSTMENTS /PROFIT MARGINS

The majority of the respondents adjust their prices based on the markup to determine the final pricing.

> *"Price costing formula is carried out and based on the final calculation a percentage markup is added to determine the final price" [H1]*

Certain hospitals rely on the profit margins generated by hospitals.

> *"Profit margins are decided as per hospital policy in line with the revenue target and fixed minimum margins are available for all services" [H5]*

Nevertheless, some argue that it only serves as a guide.

> *"Although various forms of costings are done to ascertain standard margins, this only serves as a guide to arrive at pricing decisions" [H4]*

However, some hospitals use arbitrary methodologies to adjust the pricing.

> *"We do look at our cost base, but methodical scientific calculations are not carried out" [H2]*

CONSUMABLES AND HUMAN RESOURCE COST

There was consensus that consumables and human resorce cost did have an influence when it came to price adjustments.

> *"…cost changes of drugs, consumables, capital expenditure, employee-related costs…" [H2]*

> *"…fixed cost of the product and services and the recurrent costs involved…" [H5]*

> *"Common charges including consultation fees, laboratory and other diagnostic charges, inpatient charges are benchmarked regularly" [H4]*

> *"Annual cost verifications are done for the high-priced services and interventions" [H8]*

ECONOMIC FACTORS

Some respondents stated that the economic factors and fiscal policies influenced price adjustments within the private hospitals

> *"Mostly market conditions, price changes in input materials and government policy decisions are the key factors that influence our pricing changes" [H3]*

> *"…foreign exchange rates and the spending power of people" [H5]*

> *"…dollar fluctuation and demand" '[H8]* Some argued that taxation was an influential factor in price adjustments.

> *"Any regulatory issues such as taxations" [H8]*

DISCUSSION

THE MAIN FINDINGS

Five key themes emerged from this study, namely influence from the practicing clinicians, competitor pricing, price adjustment/profit margins, consumables and human resource cost and economic demands. It is important to review these findings in the light of following established international dimensions on healthcare pricing [6,10, 11,12,13]

- The base or unit of activity upon which prices are defined and paid
- The level of the payment or price per unit of the chosen base
- The administrative and economic process by which that price level is determined

THE BASE OR UNIT OF ACTIVITY UPON WHICH PRICES ARE DEFINED AND PAID

This study suggests that the healthcare providers of the Sri Lankan private health system use pricing lists or chargemasters to display various products or services they offer. These chargemasters provide a detailed list of pricing by the product or the services provided to the patient. Therefore, it can be firmly established that FFS is the most established base of payment in Sri Lankan private healthcare services.

Many approaches prevail internationally on determining the base of payments [6,10,16]. This study did not provide evidence to suggest that some of the popular international approaches such as DRG, are being practiced in Sri Lanka. Even though the FFS method has been and continues to be the most prevalent method globally, this system is not without disadvantages [12,14,6]. From a Sri Lankan perspective, the biggest advantage of FFS method would be rewarding the provider directly for the volume and types of services it provides. It forces the providers to describe in detail the offered products and services. However, the major disadvantage would be the strong financial incentive to prescribe for and deliver more healthcare to patients than may be clinically warranted.

There is no mechanism to reward better service or penalize substandard service levels [12]. However, all the above-mentioned notions warrant further investigation within the Sri Lankan context even though international studies have firmly established the same [12,14,6].

Out of pocket expenditure (self-payers) is the main source of finance for private health spending in Sri Lanka. In 2019, out of the total private expenditure on healthcare, 88.7% of the contribution came from self-payers [4]. In this context, the FFS method may not safeguard the interests of fragmented representation of individual payers against unfair pricing imposed by healthcare providers. Also, this study reveals that health service providers enjoy unhindered liberty in determining profit margins for the services offered. Some have indicated they go by revenue targets and costs-based price markups. Absence of a mechanism to determine optimum profit margins would be disadvantageous to the users/patients. Here again, the above-mentioned notions need to be validated through a scientific study carried out within the Sri Lankan context.

DETERMINING THE LEVEL OF PAYMENT OR PRICE PER UNIT OF THE CHOSEN BASE

Based on the main findings of this study, the five key themes are the main influences in determining the pricing decisions. To determine the exact degrees of influence by each factor further studies need to be conducted.

THE ADMINISTRATIVE AND ECONOMIC PROCESS BY WHICH THAT PRICE LEVEL IS DETERMINED

When it comes to administrative and economic processes by which the pricing levels are determined, there is lack of evidence to suggest that common international approaches such as individual negotiations between providers and payers, collective negotiations between associations of providers and payers or unilateral price setting by a regulator [6] are being practiced in the Sri Lankan private healthcare sector. Based on the findings of this study, it is very much evident that the private healthcare providers unilaterally fix pricing primarily influenced by the identified key themes of this study.

Further, there is no evidence to suggest that there exists an organized framework representing the interests of payers/patients when private health sector administrators arrive at pricing decisions. In Sri Lanka in terms of total private health spent, corporate employers and private health insurance contributions are a mere 7.2% and 3.8%, respectively [4]. It appears that the relative bargaining power of these contributors is somewhat weaker in influencing the pricing decisions of private healthcare administrators.

OTHER FINDINGS THAT INFLUENCED PRICING

The five key themes identified in this study can potentially become detrimental to the common interests of the users of private healthcare. If the influence of practicing clinicians is too strong, it can become a negative influence on safeguarding the interests of users of healthcare services. Allowing healthcare providers to adopt whatever profit margins they wish without proper regulation can become a deterrent to safeguarding patients' rights on healthcare pricing. Exact motives of healthcare providers on considering competitor information in determining pricing is unclear. Further studies are needed to establish the relative merits and the demerits of the above factors.

LIMITATIONS OF THE STUDY

This qualitative study had several strengths and limitations worth noting. One of the strengths included achieving saturation within our dataset. In addition, one interviewer delivered all the interviews to achieve consistency. To achieve consensus, the thematic analysis was undertaken by two independent co-authors. The main limitation was that information was derived from nine different private hospitals in Sri Lanka. However, this represented more than 50% of the total private bed capacity in Sri Lanka [1,2].

CONCLUSION

This study identified that the base of payment in the Sri Lankan private health system is fees for services (FFS). Since the average users of the Sri Lankan private health system are fragmented without being organized into formal user groups, the FFS method might not safeguard the interests of self-payers against healthcare providers all the time. Payer groups are vulnerable to the common weaknesses of the FFS system. The Sri Lankan private health system can benefit from the popular international approaches to determining the base of payment, such as diagnostic related groups (DRG). However, all the above approaches should be investigated further within the Sri Lankan context. This study also provided evidence suggesting private healthcare providers unilaterally fix pricing primarily influenced by the practicing clinicians, competitor's pricing, profit margins, economic demands, and prevailing cost factors such as human resources and consumables. The structure and the depth of this study was inadequate to investigate the exact degrees of influence by those factors on pricing. Based on the findings it appears that the

healthcare providers fix profit margins and general pricing levels based on mechanisms developed by themselves. There is a lack of evidence to suggest that healthcare administrators consulted the healthcare users/patients adequately on pricing decisions. International studies have proven that a collective bargaining framework for healthcare pricing with the participation of payer groups have served the interests of payers/patients better [6].

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