Economic Perspectives and Influence of Education in Healthcare Accessibility- A Study

Dr.R. Ravikumar¹, Ms.D. Susmitha²

¹MA., M.phil., Ph.D Associate Professor & Head, Department of Economics, PSG College of Arts and Science, Coimbatore-

²Research Scholar, Department of Economics, PSG College of Arts and Science, Coimbatore

Abstract—Medical care is a crucial sector that significantly contributes to employment generation, where Human Resource Development (HRD) plays a key role in ensuring efficiency. A hospital's framework should be designed to be user-friendly, offering humanitarian assistance to address patients' concerns while maintaining cost-effectiveness. This study utilizes primary data to assess the impact of education on healthcare accessibility and to highlight the challenges faced in this domain. Education and awareness play a vital role in healthcare decision-making, influencing the demand for medical intervention. The study employs primary data collection methods to analyse the relationship between education and healthcare accessibility. The chi-square test is used to determine whether a significant association exists between educational attainment and healthcare expenses. A wellinformed population is more likely to make informed healthcare decisions, leading to better health outcomes. The findings also reveal that hospitals with effective communication and approachability create a userfriendly environment for patients, enhancing trust and satisfaction. Additionally, the research emphasizes that the progress of healthcare infrastructure should align with social responsibility to improve service delivery. Management in hospitals should take the initiative to provide efficient medical care, prioritizing patient welfare over commercial motives.

Index Terms—Health care, Education, Human Resource Development, Infrastructure and efficiency

I. INTRODUCTION

The economic impact of education in assessing medical care is a multifaceted topic that highlights the crucial relationship between education, healthcare quality, and economic outcomes. In this context, education influences both the decision-making process in healthcare and the overall economic performance of the healthcare sector.

The Role of Education in Healthcare Decision-Making Education, at both the individual and institutional levels, plays a key role in improving decision-making processes in healthcare. On a macro level, healthcare systems are heavily reliant on educated professionals, including doctors, nurses, medical researchers, and public health officials, who are trained to evaluate, diagnose, and treat patients efficiently. On a micro level, the level of education among patients influences how they interact with the healthcare system, including how they make choices about treatment, prevention, and lifestyle.

Health literacy or the ability to understand health information, empowers patients to make informed decisions about their health, potentially improving health outcomes and reducing costs by avoiding unnecessary procedures or treatments.

Medical education equips healthcare professionals with the skills needed to assess medical conditions accurately, choose effective interventions, and manage resources wisely¹.

Economic Impact of Educated Healthcare Providers Highly educated healthcare professionals have a significant impact on the effectiveness and efficiency of medical care, which, in turn, affects the overall economic performance of healthcare systems.

• Increased Productivity: Educated providers are better at diagnosing and treating medical

¹ Fitri, Y. E. (2024)." The impact of education and health investment on economic progress. International Journal of Economic Perspectives".

- conditions, which can lead to better patient outcomes and reduced time in treatment, ultimately lowering the overall cost of care.
- Cost-Effectiveness: Medical professionals with specialized training are more likely to choose cost-effective treatments, reducing unnecessary tests, medications, and procedures. This has a positive impact on the cost-efficiency of healthcare systems.
- Innovation and Research: Educated healthcare providers are often involved in medical research and innovation, which can lead to new treatments, drugs, and technologies that further improve healthcare quality and reduce long-term costs.

The Role of Education in Public Health and Prevention Educational initiatives aimed at the general public also have a significant economic impact on healthcare systems. Health education programs that promote preventive care can decrease the incidence of chronic diseases, which in turn reduces the overall cost burden on the healthcare system.

- Preventive Education: Educating populations about healthy lifestyles (such as exercise, nutrition, smoking cessation) helps reduce the risk of conditions like heart disease, diabetes, and obesity. This leads to fewer hospital visits, surgeries, and long-term treatments.
- Vaccination Programs: Educating the public on the importance of vaccination helps prevent the spread of infectious diseases, reducing healthcare expenditures on treating preventable diseases².

Economic Consequences of Low Health Literacy
On the flip side, insufficient education, particularly in
health literacy, can have negative economic
consequences. People with lower health literacy may
have difficulty understanding medical instructions,
adhering to prescribed treatments, or navigating the
healthcare system effectively. This can lead to:

 Increased Healthcare Costs: Misunderstandings of medical information may result in inappropriate treatments, missed appointments, or

- hospital readmissions, all of which increase healthcare costs.
- Worse Health Outcomes: Low health literacy is often linked to worse health outcomes, as patients may be less likely to seek care at the right time or follow medical advice properly³.

Economic Benefits of Education in the Broader Economy

Beyond the direct effects on healthcare, education in general also contributes to the broader economy through the medical sector. Highly educated healthcare workers increase the overall productivity of the economy by:

- Generating Employment: The healthcare sector, particularly in specialized fields, provides significant employment opportunities, from clinical staff to administrative and support roles.
- Economic Development: A healthy population, facilitated by education on health and wellness, is a key factor in driving economic development. With fewer sick days, higher productivity, and less burden on social welfare systems, education in healthcare indirectly boosts overall economic output⁴.

The Cost-Benefit Analysis of Education in Healthcare A key aspect of the economic impact of education in assessing medical care involves the cost-benefit analysis of investing in educational initiatives. Whether through formal medical training or public health education campaigns, the long-term economic benefits—such as improved health outcomes, increased workforce productivity, and reduced healthcare spending—often outweigh the initial costs. Furthermore, higher levels of education among healthcare workers can lead to better-managed health systems, more efficient healthcare delivery, and better resource allocation⁵.

Objectives

- To assess the impact of education in health care sector
- 2. To illustrate the benefits of education in hospital framework.

² Bharat patil et al (2024) vol 12 (4) "The Role Of Human Resources Management In Hospitals"

3 Selvaraj et.al (2016) vol 7(2)."The Impact of Health and Education on Economic Growth of Asia: A Multilevel Modelling Approach".

⁴ Yong Yang et al (2021) "An equity evaluation in stroke inpatients in regard to medical costs in China: a nationwide study"

⁵Oyewole Oluwaseun Oduwusi (2018) vol 4(2)." Human Resource Management and Its Impact in Healthcare Services in Nigeria".

3. To address the challenges to combat medical interventions within the health infrastructure.

Statement of the problem

The study envisages the insights of healthcare system through the educational impact unleashing the societal needs. The knowledge of the community plays a crucial role in medical care interventions. Health is the key for economic and human development. The productive capacity of the population is achieved if the infrastructure is better equipped to meet the health needs. The study addresses the pressing demands and response of corporates (Hospitals) to aid in social wellbeing. The cost effectiveness is a tool to monitor and suggest opinions to health care providers to make sound decisions. The higher levels of education among healthcare workers does lead to better-managed health systems, more efficient healthcare delivery, and better resource allocation or running behind the greed of money to lure patients. The study addresses the exaggerating nature of health care providers and negligence of individuals on the subjective matter of ample alternates available for betterment of medical care. The study investigates whether the health is a transmission mechanism through which education drives economic growth. It focused to bring out the issues on whether and how human capital and social interaction affect income premiums.

II. REVIEW OF LITERATURE

Yarlini Balarajan et al (2011)⁶ India's healthcare system faces significant challenges in addressing the needs of its most disadvantaged populations. Inequities are further exacerbated by the burden of high out-of-pocket expenses, with private households contributing more than three-quarters of healthcare spending in India. This financial burden results in a large proportion of households falling into poverty due to health-related expenditures, pushing approximately 39 million people into poverty each year. The study identifies several key challenges to achieving equity in healthcare delivery and financing in India. These include unequal resource distribution, limited physical

Parthasarathi & Sinha (2016)⁷ The Tamil Nadu public health model is widely recognized for its effectiveness in delivering high-quality, affordable health services, particularly to rural populations. Notably, Tamil Nadu stands out as the only state in India with a dedicated public health cadre at the district level and was the first to introduce a Public Health Act in 1939. Key factors contributing to the state's success include the successful implementation of the Universal Immunization Programme, the establishment of the Tamil Nadu Medical Services Corporation to regulate drug procurement and promote generic medicines, and the early integration of indigenous medicine into the healthcare system. Additionally, the state's 2003 health policy, which focused on addressing the needs of low-income and disadvantaged communities, and the efficient execution of the Tamil Nadu Health Systems Project (TNHSP), played vital roles in improving health outcomes. The model also benefited from strong political leadership, economic growth, increased literacy rates, gender equality, and a reduced fertility rate. Despite some existing challenges and shortcomings, the Tamil Nadu model remains a prominent example of effective healthcare delivery in resource-constrained settings and offers a model for other states to emulate.

Oyewole Oluwaseun Oduwusi (2018)⁸ Human resource management (HRM) in the healthcare sector plays a crucial role in ensuring the effective delivery of healthcare services. Through processes such as staff

access to quality healthcare services, and a shortage of skilled healthcare professionals. Additionally, high out-of-pocket expenses, rising healthcare costs, and behavioural factors influencing healthcare demand further contribute to the inequities in the system. It calls for investment in strengthening health systems research to build a more robust knowledge base. The study suggests that the implementation of these strategies, in conjunction with strengthening public health and primary care services, would offer a pathway to more equitable healthcare in India, ensuring that healthcare services reach all segments of the population more fairly.

⁶ Yarlini Balarajan et al (2011) "Health Care and Equity in India"

⁷ Parthasathy et al (2016) "Towards a Better Health Care Delivery System: The Tamil Nadu Model, National Library of Medicine.

⁸ Oyewole Oluwaseun Oduwusi (2018) Vol 4(2) "Human Resources Management and its Impact in Healthcare Services in Nigeria".

performance monitoring and evaluation, employee compensation, and the recruitment of skilled professionals, HRM directly influences the quality of care provided to patients. This study examines the impact of HRM practices on healthcare service quality and their role in facilitating efficient patient treatment. It reveals that well-executed HRM significantly enhances healthcare services. A key finding is that the effective management of human resources can greatly improve the performance of healthcare workers, leading to better service delivery. Continuous investment in staff training and capacity-building is to ensure the sustained recommended effectiveness of healthcare services. The study calls for further research on the relationship between HRM practices and patient safety, suggesting that a deeper understanding of this connection could provide additional insights into enhancing healthcare service quality.

Rushdi zaiter et al (2021)9 The effective management of human resources within healthcare institutions is crucial for providing efficient and high-quality medical services, ultimately leading to greater patient satisfaction. This research aims to explore how human resources management (HRM) practices influence healthcare service quality and patient satisfaction. A descriptive research approach was utilized to review and analyse previous studies on the topic. The findings indicate that well-implemented HRM practices significantly impact the quality of healthcare services and enhance the performance of hospital staff. This study specifically focused on the relationship between the four core functions of HRM and healthcare quality in private hospitals located in Baalbek-Hermel Governorate. Data for this cross-sectional research was collected through a paper survey designed by the researcher. The survey was distributed to 80 healthcare professionals, including physiotherapists, laboratory technicians, nurses, and medical doctors, all of whom are directly involved in patient care at private hospitals in the region. Descriptive and correlation analyses were performed on the data. The results revealed a positive relationship between healthcare workers' job

satisfaction, which is influenced by HRM practices, and the quality of care they deliver.

Nihaal Singh et al (2023)¹⁰ Health economics, once overlooked as a minor branch within the broader fields of Economics and Finance, has gained increasing recognition in recent years. Many researchers and experts now agree that a deeper understanding and application of health economics could have helped mitigate the challenges faced during the COVID-19 pandemic. By applying the fundamental principles of health economics to such crises, better outcomes could have been achieved. This article begins by clarifying the core concepts of health economics and builds upon them. We explore these concepts in the context of the Indian economy and healthcare sector, which has experienced significant growth over the past decade. The article also highlights the impact of the COVID-19 pandemic on health economics within India and details how the country responded. Finally, we offer suggestions for healthcare professionals and researchers on how to make healthcare more accessible and affordable for the general public. Emphasis is placed on the importance of effective data collection, analysis, and research to improve the study of health economics. The responsibility lies with academics and healthcare professionals to ensure that health economics transcends a mere numerical analysis and becomes a meaningful discipline aimed at benefiting society.

III. METHODOLOGY

The study was analysed with the use of primary data from 109 respondents pertaining to medical care access.

Sampling size – 109

Selection of Sample size – The sample was collected in the Tirupur and Coimbatore district medical clinics and hospitals. There are around 150 plus hospitals but the people floating ratio was quite higher in 2 hospitals of each district. Hence the data was collected in that particular locality.

Sampling Design – Random Snowball Sampling

10 Nihaal Singh et al (2023) vol 11(12) "The past, Present and future of health economics in India".

⁹ Rushdi Zaiter (2021) Vol 11(3) "Study of the Relationship between the Human Resources Management Function and the Quality of health Care at Private hospitals in Baalbek-Hermel Governorate.

IV. ANALYSIS AND INTERPRETATION

Table 1: Frequency of visits for accessing medical care

Particulars	Percentage	Number of Respondents
within weeks	22	24
within months	40.4	44
within a year	37.6	41
Total	100	109

Source: Primary Data

Table 2: Average amount of expenses for your medical bills

Particulars	Percentage	Number of
		Respondents
below 2000	43.1	47
2000 to 5000	14.7	16
5000 to 10000	27.5	30
above 10000	14.7	16
Total	100	109

Source: Primary Data

Table 3: Time taken to ask queries to a doctor regarding medical care access

Particulars	Percentage	Number of Respondents
around 5 minutes	50.5	55
within 10 minutes	31.2	34
I confess until reaching a tentative solution	18.3	20
Total	100	109

Source: Primary Data

Table 4: Doctors hesitate to answer your queries despite the fees charged

Particulars	Percentage	Number of
		Respondents
strongly agree	66.1	72
strongly	33.9	37
disagree		
Total	100	109

Source: Primary Data

Table 5: Does Educated Individuals have advantage over medical care than uneducated people

Particulars	Percentage	Number of
		Respondents
Strongly	53.2	58
agree		
Neutral	39.4	43
Disagree	6.4	7
Strongly	0.9	1
disagree		
Total	100	109

Source: Primary Data

Table 6: Concentration of medical care institution predominantly lies in

Particulars	Percentag	Number of
	e	Respondent
		S
Meeting patients'	28.4	31
welfare		
Credibility to	11	12
Institution/manageme		
nt		
Money as a driving	47.7	52
force		
Intensive Care for the	12.8	14
payments made		
Total	100	109
	ĺ	I

Source: Primary Data

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Table 7: Chi Square count test

Chi	Educated Individuals have advantage					
squa	over medical care access than uneducated					
re	individu	ıals				
cou						
nt						
		Dis	Ne	Strong	Stron	T
		agr	utr	ly	gly	o
Ave		ee	al	Agree	Disag	t
rage					ree	a
amo						1
unt	2000	3	8	5	0	1
of	to					6
expe	5000					
nses	5000	2	4	24	0	3
for	to					0
the	10000					
med	Above	0	3	13	0	1
ical	10000					6
bills	Below	2	28	16	1	4
	2000					7
Tota		7	43	58	1	1
1						0
						9

Table 8: Chi-Square Tests

	Value	df	Asymptotic Significanc e (2-sided)
Pearson Chi- Square	29.786ª	9	.000
Likelihood Ratio	31.311	9	.000
N of Valid Cases	109		

Interpretation

There is a statistically significant association between expenses incurred on medical care and educational status of individuals. The significance value is less than 0.05, indicating there exist a positive relationship between education and expenses made on medical care access.

Symmetric Measures

		Value	
			e Significance
Nominal by Nominal	Phi	.523	.000
	Cramer's V	.302	.000
N of Valid Cases		109	

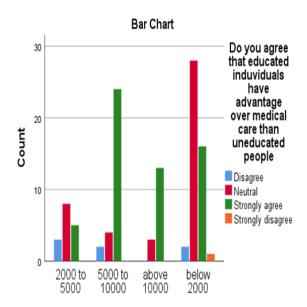
Interpretation:

A Phi value of 0.523 suggests a moderate positive association between the two categorical variables, indicating that there is a moderate relationship between education and expenses

Range: Cramér's V values range from 0 to 1.

- 0: No association between the variables.
- 1: Perfect association.
- The strength of the relationship can be categorized as follows:
- 0 to 0.1: Very weak association.
- 0.1 to 0.3: Weak association.
- 0.3 to 0.5: Moderate association.
- 0.5 to 1: Strong association.

A Cramér's V value of 0.302 suggests a moderate association between education level and expenses incurred in accessing medical care.



What is the average amount of expenses for your medical bills

Most of the people agreed that the educated individuals possess advantages over medical care access in discharging the expenses and there forms a minor majority agreeing in neutral for the medical bills claiming below 2000.

V. FINDINGS

- 1. There exists a positive relationship between education and awareness on expenditure incurred in medical care accessibility.
- 2. The hospitals mostly are driven by corporates where money becomes a mission and quality of service were neglected.
- 3. The cost of medical care access determines the expenses to be undertaken for a treatment.
- 4. A hospital with better approachability in meeting the queries of patients creates a user-friendly environment.
- 5. Hesitation and Restrictions can trigger the patient's welfare and wellbeing.

Suggestions

- The quality of service can be improved if the human resource development is well monitored in catering the patient needs.
- Education is essential to improve the awareness of diseases and treatments available for the given cost.

- Appropriate questions regarding queries in the hospital, patients' health status are raised by educated persons, health care framework must acknowledge the psychological trauma behind admission, expenses incurred despite of patients' awareness to ensure efficient and equality of all.
- Confession with the doctor's visit are meant to sort out the queries. Because patients are unaware and try to resolve or to educate with proper concern.
- Management should take up the responsibility in ensuring efficient care which ultimately determines the service motive unlike the other businesses.

VI. CONCLUSION

The Role of Education in Healthcare Decision-Making is a human development approach since the qualitative aspects of service cannot be measured. It is a subjective phenomenon. Income premiums are affected due to the expenses are highly made for the treatments. Education is a predominant tool in influencing the nature of spending to act within financial limitations. The precautionary measures are essential to tackle the diseases and pave way for healthier lifestyle. Responsible role of corporates and medical management helps in addressing the pressing demands of society. Thus, the study presents the psychological nuances and impact of spending nature affected with the education intervention. The human resource management is crucial to better handle the structural framework in medical care access. On a micro level, the level of education among patients influences the healthcare system, including how they make choices about treatment, prevention, and lifestyle.

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