ISSN: 0975-833X

Available online at http://www.journalcra.com

International Journal of Current Research

Vol. 17, Issue, 02, pp.31833-31836, February, 2025
DOI: https://doi.org/10.24941/ijcr.48539.02.2025

INTERNATIONAL JOURNAL OF CURRENT RESEARCH

RESEARCH ARTICLE

OUT-OF-POCKET EXPENDITURE ON IN TRADITION HEALTHCARE PRACTICES OTHER THAN ALLOPATHY AND AYUSH: A COMMUNITY-BASED STUDY

[1]Sunil Kumar, [2]Sunil Kumar Yadav [3]Devanand Upadhyay and [4]Tej Bali Singh

[1]Associate Professor, Department of Community Medicine, Banaras Hindu University, Varanasi-221005, India
[2]Research Scholar, Department of Community Medicine, Banaras Hindu University, Varanasi-221005, India
[3]Assistant Professor, Department of Siddhant Darshan, Banaras Hindu University, Varanasi-221005, India
[4]Former Professor, Center of Biostatistics, Banaras Hindu University, Varanasi-221005, India

ARTICLE INFO

Article History:
Received 25th November, 2024
Received in revised form
20th December, 2024
Accepted 24th January, 2025
Published online 27th February, 2025

Key Words:

Out-of-pocket expenditure, In Tradition healthcare, Traditional Medicine, Healthcare Costs.

****Corresponding author:***
Sunil Kumar Yadav

ABSTRACT

Background: Out-of-pocket expenditures (OOPE) within the healthcare domain constitute a considerable financial burden for individuals and families, especially in economically disadvantaged environments. Although extensive research has been devoted to both allopathic and AYUSH (Ayurveda, Yoga, Unani, Siddha, and Homeopathy) medical systems, there exists a relative paucity of scholarly attention towards traditional healing modalities that lie outside the purview of these established frameworks, collectively termed "In Tradition" healthcare. These modalities, encompassing folk remedies, spiritual healing, and ethnomedicine, continue to be prevalent across India, yet they are notably deficient in rigorous financial evaluation. A thorough comprehension of the OOPE associated with In-tradition healthcare is imperative for assessing its economic viability and its ramifications on healthcare policy formulation. ***Methods:*** A cross-sectional investigation was executed in the Varanasi district employing systematic random sampling methodologies to evaluate OOPE for In-tradition healthcare in comparison to AYUSH and allopathic approaches. Data were meticulously gathered through structured interviews with 566 participants and analyzed utilizing SPSS version 28.0. Median OOPE values across various health conditions were contrasted employing the chi-square statistical test to ascertain significance. ***Results:*** The findings of the study revealed that In-tradition healthcare manifested lower OOPE for conditions such as mosquito-borne diseases (₹500 versus ₹1900, p=0.017) and accident-related injuries (₹660 versus ₹6050). Nevertheless, health conditions including high blood sugar and gastrointestinal disorders presented higher or comparable OOPE when utilizing In-tradition methods. No statistically significant variance in expenditures was detected for ailments related to fever, respiratory issues, neurological disorders, and cardiovascular morbidities. Overall annual median OOPE on In Tradition Health Care is less than the contemporary health care. ***Conclusion:*** In-tradition healthcare represents a prevalent yet inadequately researched facet of the healthcare framework in India. This investigation emphasizes its financial implications, revealing economic advantage. A very high proportion of family (32.7%) showing OOPE on health is a worry some for our nation.

Citation: Sunil Kumar, Sunil Kumar Yadav, Devanand Upadhyay and Tej Bali Singh. 2025. "Out-of-pocket expenditure on in Tradition healthcare practices other than Allopathy and AYUSH: A community-based study*". International Journal of Current Research*, 17, (02), 31833-31836.

INTRODUCTION

Healthcare systems worldwide have evolved into diverse frameworks incorporating allopathic medicine, alternative systems such as AYUSH (Ayurveda, Yoga, Unani, Siddha, and Homeopathy), and a range of traditional and indigenous healing practices. Despite the widespread policy support and institutionalization of AYUSH in India, there remains a considerable segment of the population that relies on non-AYUSH traditional healthcare methods, here referred to as "in tradition" healthcare. In-tradition healthcare comprises localized healing practices, folk remedies, herbal medicine, and spiritual therapies that operate outside both mainstream allopathy and government-supported AYUSH frameworks.

Out-of-pocket expenses (OOPE) in healthcare refer to the direct costs that individuals bear for medical services, including hospital stays, prescription drugs, and doctor visits. In India, high OOPE is a longstanding challenge, particularly for low-income families, forcing them to allocate substantial portions of their income or savings to medical expenses. This financial burden can lead to impoverishment, debt, and reduced spending on other essentials like food and education. Additionally, excessive OOPE discourages timely medical attention, worsening health conditions and escalating treatment costs. In response, the Indian government has expanded health insurance programs with the name of AYUSHMAN BHARAT and invested in public healthcare infrastructure. Traditional and indigenous healthcare practices—including folk methods,

ethnomedicine, spiritual healing, and faith-based treatments—remain significant in shaping healthcare-seeking behaviors across various socioeconomic and cultural backgrounds. These practices are deeply rooted in local traditions, beliefs, and social networks. Despite their widespread use, the financial burden of these treatments is poorly understood. People often turn to non-allopathic and non-AYUSH traditional methods due to affordability, cultural acceptance, dissatisfaction with modern medical care, and perceptions of holistic healing. However, the financial implications of these choices, particularly in terms of OOPE, remain largely unexplored. Understanding these costs is crucial for assessing their impact on household budgets and healthcare equity. This study aims to analyze the expenditure incurred on traditional healthcare methods beyond Allopathy and AYUSH, focusing on their financial impact on households in the Varanasi district of India. The findings will contribute to discussions on healthcare accessibility, affordability, and the potential integration of traditional practices into formal healthcare systems.

Out-of-Pocket Expenditure in Healthcare: Out-of-pocket healthcare expenditure represents a significant share of total healthcare spending in India, often leading to financial distress among households, particularly those from lower socioeconomic strata (Ambade *et al*., 2022). Studies indicate that OOPE accounts for approximately 71% of total health expenditures, pushing families into medical poverty traps and limiting their ability to afford other essential goods (Sriram, S. and Albadrani, M. 2022). A study analyzing components of OOPE found that medicines accounted for 60.3% of outpatient expenses, followed by doctor consultation charges and diagnostic tests (Ambade *et al*., 2022). These findings underscore the economic burden imposed by healthcare expenses on Indian households.

Utilization of Alternative and Traditional Healthcare Systems: Traditional healthcare practices, including AYUSH (Ayurveda, Yoga, Unani, Siddha, and Homeopathy) and non-AYUSH methods, continue to be widely utilized across India. While the government has attempted to integrate AYUSH into public healthcare, the overall utilization remains low, with only 6.9% of outpatient visits attributed to AYUSH care (Rudra *et al*., 2017). Another study found that AYUSH is often preferred for chronic conditions rather than acute illnesses, highlighting its perceived long-term benefits (Goyanka *et al*., 2023). Beyond AYUSH, non-codified traditional practices, such as folk medicine and spiritual healing, persist, often driven by affordability and cultural acceptance (Payyappallimana, 2013). These practices remain largely unregulated, leading to variations in quality and cost (Raju *et al*., 2016).

Financial Burden of Traditional and In Tradition Healthcare: Although traditional medicine is often considered an affordable alternative, the associated costs can still contribute to significant OOPE. A study analyzing AYUSH expenditure found that while government-supported AYUSH services reduce costs, private-sector consultations and self-medication practices increase financial burdens (Rudra *et al*., 2017). Moreover, studies on traditional medicine usage in middle-income countries indicate that reliance on these methods is more common among rural and economically disadvantaged populations (Oyebode *et al*., 2016). In India, self-medication using traditional remedies is prevalent, particularly in low-income households, contributing to unaccounted healthcare expenses (Garg & Goyanka, 2023). Additionally, studies suggest that while AYUSH medicines constitute only a small fraction of total medical expenditure, indirect costs such as travel and supplementary treatments significantly add to OOPE (Garg CC, 2023).

Policy Considerations and Healthcare Integration: The Government of India has implemented several policies to promote AYUSH and traditional medicine, including the National AYUSH Mission and the establishment of the WHO Global Centre for Traditional Medicine (Goyanka *et al*., 2023). However, these policies predominantly focus on codified traditional systems, often neglecting non-AYUSH folk medicine. Research suggests that greater integration of traditional healthcare into formal healthcare frameworks could enhance accessibility and financial protection, particularly for marginalized communities (Raju *et al*., 2016). Cross-referral systems between allopathy, AYUSH, and traditional healers may improve health outcomes and reduce OOPE (Kumar *et al*., 2023). Additionally, recognizing the economic impact of traditional healthcare through comprehensive policy frameworks could support more equitable healthcare access in India.

MATERIALS AND METHODS

Study Design and Setting: This cross-sectional descriptive study aimed to assess the out-of-pocket expenditure of In Tradition healthcare practices beyond AYUSH and Allopathy in the Varanasi district. Data were collected using a community-based methodology from both rural and urban populations. The study was conducted in the Vidyapeeth block of Varanasi district due to its diverse population and logistical feasibility for data collection.

Study Participants: A pilot study that was done estimated that 33% of individuals sought healthcare through In Tradition approaches other than Allopathy and AYUSH. Using this estimate, the initial computed sample size was 339.61. To account for a 10% non-response rate, the sample size was increased to 377.3. Finally, after incorporating a design effect of 1.5 for systematic random sampling, the corrected final sample size was 566 participants.

Sampling: Systematic random sampling was employed to ensure representativeness. The first household was chosen randomly, and every fourth household was subsequently selected. A structured and pre-tested interview schedule was used to collect data on socio-demographic characteristics, healthcare-seeking behaviors, and the utilization of traditional medical practices. A pilot study was conducted to validate the questionnaire for clarity and reliability.

Data Collection: Data were gathered using a structured and pre-tested questionnaire to maintain accuracy and reliability. The study spanned from November 2023 to June 2024, allowing for comprehensive data collection across seasonal variations. This ensured that trends in healthcare-seeking behavior and expenditure were thoroughly captured.

Statistical Analysis: Descriptive statistics were used to summarize data in terms of Number and Percent, medians, and interquartile ranges (Q1-Q3). The Median test was employed to assess statistical significance between In Tradition and other

healthcare methods (AYUSH and Allopathy). All statistical analyses were conducted using SPSS version 28.0.

Ethical Considerations: Ethical approval was obtained from the Institutional Ethics Committee of IMS, BHU, Varanasi, UP, India (2023). Written informed consent was secured from all study participants prior to data collection.

RESULTS

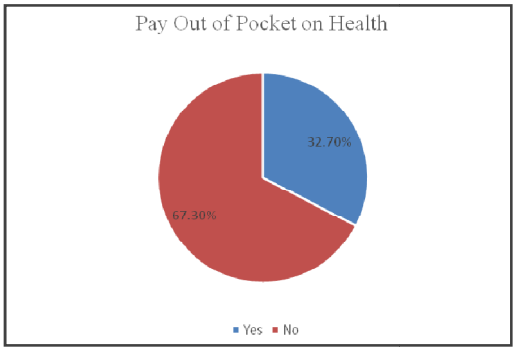

Figure 1: Out of Pocket Expenditure on Health During Last One Year

Here is the pie chart representing out-of-pocket health expenditure. The blue section represents the 32.7% of respondents who had to pay out of pocket, while the red section represents the 67.3%.

DISCUSSION

The findings indicate that In Tradition healthcare methods offer a mixed financial advantage. Certain conditions, such as mosquito-borne morbidity and accident-related injuries, were significantly cheaper when treated through In Tradition practices, possibly due to lower consultation fees and reliance on locally available remedies (Oyebode *et al*., 2016). This aligns with previous research suggesting that traditional medicine can be a cost-effective option for certain ailments, especially in rural settings where access to modern healthcare is limited (Ambade *et al*., 2022). This can also be said that in case of mosquito borne diseases (1900) and accident related injuries (6050), the cost of allopathic treatment is higher than other morbidities. Conversely, for conditions such as high blood sugar and gastrointestinal morbidity, the OOPE for In Tradition treatments was comparable or higher than other methods. This may be attributed to prolonged treatment durations, reliance on herbal formulations that require frequent purchases, or the involvement of multiple practitioners (Rudra *et al*., 2017). Studies on traditional medicine usage in India and other middle-income countries have highlighted similar concerns, emphasizing that while these methods are often perceived as affordable, their cumulative costs can be substantial over time (Garg & Goyanka, 2023). The lack of significant cost differences in fever, body aches, respiratory morbidity, and heart-related conditions suggests that patients may be choosing healthcare options based on accessibility and cultural familiarity rather than purely financial considerations

Table 1. Comparison of Annual Out-of-Pocket Expenditure by median test between in Tradition Practices and Other Methods (AYUSH and Allopathy)

	InTradition Method (n=113)	Other Method (n=369)	chi-square value	p-value
	Median (Q1 - Q3)	Median (Q1 - Q3)		
Fever and body ache (n=86)	660(500 - 2200)	1240(550 - 2620)	0.568	0.451
Mosquito borne morbidity(n=40)	500(300 - 830)	1900(800 - 5000)	5.714	0.017
Respiratory morbidity(n=45)	2250(1100 - 3500)	2100(1420 - 4275)	0.18	0.172
Heart Morbidity(n=54)	900(515 - 6450)	1645(500 - 4600)	0.587	0.444
High Blood Sugar(n= 42)	1100(1000 - 1500)	550(400 - 3040)	3.200	0.074
Gastrointestinal morbidity(n=61)	2580(1250 - 4500)	1070(350 - 5050)	2.917	0.088
Urinary morbidity(n=11)	2900(1000 - 4800)	4000(1500 - 5000)		
Skin Problem(n=22)	1200(470 - 1700)	1400(600 - 4100)	1.447	0.151
Accident or injury(n=17)	660.00	6050(1170 - 27750)		
Ortho Problem(n=53)	1550(1000 - 3600)	1700(750 - 4200)	0.339	0.56
Neurological Problem(n=44)	2300(1500 - 4200)	2730(1700 - 10550)	0.096	0.757
Eye Morbidity(n=27)	2250(800 - 4000)	800(400 - 2000)	1.432	0.151
ENT morbidity(n=12)	3800(3010 - 4300)	8000(800 - 25050)	0.855	0.392
Dental morbidity(n=6)		1760(1000 - 3000)		
Pregnancy Care and Child Care(n=13)	665(330 - 1000)	2000(1300 - 30400)		
Others Morbidity(n=74)	4150(1100 - 10200)	2425(1000 - 14750)	0.259	0.611
Total of Median Cost	27,465	39,370		

The study compared OOPE for various morbidities between in Tradition and other healthcare methods. Mosquito borne morbidity showed significantly lower OOPE for In-Tradition (₹500) than other methods (₹1900, p=0.017). Accident or injury cases also had a stark difference, with In Tradition costing ₹660 versus ₹6050 for other methods. For fever and body ache, respiratory morbidity, heart morbidity, skin problems, orthopedic, neurological, and eye morbidities, the differences in OOPE were not statistically significant. High blood sugar and gastrointestinal morbidity had higher median OOPE in In-Tradition, though not significantly different. Overall, while some conditions showed cost advantages for In Tradition methods, others exhibited comparable or even higher expenses. The findings highlight the variability in OOPE across different health conditions and treatment approaches.

(Sriram, S., and Albadrani, M. 2022). This underscores the need for a better understanding of healthcare-seeking behaviors in communities relying on traditional practices. Furthermore, the study highlights the necessity of policy interventions to integrate traditional medicine into formal healthcare systems effectively. Given the affordability advantages observed in some conditions, government support in regulating pricing, standardizing treatment protocols, and ensuring the quality of traditional medicines can enhance their role in public healthcare (Raju *et al*., 2016). Additionally, financial assistance mechanisms for traditional medicine users, such as subsidies or inclusion in insurance schemes, can help mitigate OOPE burdens (JFMPC, 2023). The data reveals that a majority of respondents (67.3%) did not have to pay out of pocket for healthcare, indicating that they might be benefiting

from government schemes, insurance coverage, or free public healthcare services. However, a significant portion (32.7%) still reported bearing direct health expenses, suggesting gaps in financial protection. This could be due to lack of awareness, exclusions in health coverage, or limited availability of free services. The findings highlight the need to assess the effectiveness of existing healthcare schemes in covering all sections of the population and ensuring that no one is left to face financial hardship due to medical expenses. Addressing these gaps through better awareness, policy adjustments, and improved healthcare accessibility could help reduce the financial burden on individuals who still pay out of pocket. Overall, the findings contribute to the ongoing debate on the role of traditional medicine in healthcare systems, emphasizing its economic implications. Future studies should explore long-term expenditure patterns, patient satisfaction, and health outcomes to provide a more comprehensive understanding of In Tradition practices in the broader healthcare landscape.

CONCLUSION

This study highlights the economic impact of In Tradition healthcare practices. The findings suggest that while some conditions, such as mosquito-borne morbidity and accident-related injuries, show a cost advantage with In Tradition methods, others like high blood sugar and gastrointestinal morbidity may result in comparable or higher OOPE. Although, overall annual median OOPE on In Tradition Health Care is less than the contemporary health care. This financial advantage highlights the need for policy makers to integrate In Tradition healthcare with formal medical systems. A very high proportion of family (32.7%) showing OOPE on health is a worrysome for our nation. Future research should further explore long-term cost trends and patient outcomes to provide deeper insights into the sustainability and effectiveness of In Tradition healthcare practices.

Authors' contributions: SK contributed to conceptualizing the study. TBS is responsible for the analysis. SKY contributed to data collection. SK, DU contributed to the critical review and interpretation of the data, and critically revised all versions of the manuscript, and approved the final version.

Acknowledgement

I sincerely thank the Indian Council of Social Science Research (ICSSR) for supporting this research through its Doctoral Fellowship. I am also grateful to the Department of Community Medicine, IMS, for its academic support.

Source of Funding: None

Conflict of Interest: The authors declare no conflict of interest.

Abbreviations used

OOPE- Out of Pocket Money
SK- Sunil Kumar
SKY- Sunil Kumar Yadav
DU- Devanand Upadhyay
TBS- Tej Bali Singh

REFERENCES

Ambade M, Sarwal R, Mor N, Kim R, Subramanian SV. Components of out-of-pocket expenditure and their relative contribution to economic burden of diseases in India. JAMA Network Open. 2022 May 2;5(5):e2210040-.

Ameh S, Akeem BO, Ochimana C, Oluwasanu AO, Mohamed SF, Okello S, Muhihi A, Danaei G. A qualitative inquiry of access to and quality of primary healthcare in seven communities in East and West Africa (SevenCEWA): perspectives of stakeholders, healthcare providers and users. BMC family practice. 2021 Dec;22:1-2.

Garg CC, Goyanka R. Unit costs for allopathic and AYUSH outpatient care in public facilities in Urban Delhi, India. Journal of Family Medicine and Primary Care. 2023 Nov 1;12(11):2752-6.

Goyanka R, Garg CC. Out-of-pocket Expenditure on Medicines and Financial Risk Protection in India: Is the Sustainable Development Goal in Sight? . Indian Journal of Human Development. 2023 Apr;17(1):28-43.

Goyanka R, Yadav J, Kumar M, Sagar SK. Utilisation and Out-of-Pocket Expenditure for AYUSH Outpatient Care among Older Adults in India. Chettinad Health City Medical Journal (E-2278-2044 & P-2277-8845). 2023 Mar 31;12(1):54-64.

Kaiser JL, McGlasson KL, Rockers PC, Fong RM, Ngoma T, Hamer DH, Vian T, Biemba G, Lori JR, Scott NA. Out-of-pocket expenditure for home and facility-based delivery among rural women in Zambia: a mixed-methods, cross-sectional study. International Journal of Women's Health. 2019 Aug 1:411-30.

Manasi S, Raju KV, Hemalatha BR, Poornima S, Rashmi KP. Alternative medicine approaches as healthcare intervention: A case study of AYUSH Programme in peri-urban locales. Institute for Social and Economic Change. 2016; WP-355.

Oyebode O, Kandala NB, Chilton PJ, Lilford RJ. Use of traditional medicine in middle-income countries: a WHO-SAGE study. Health policy and planning. 2016 Oct 1;31(8):984-91.

Payyappallimana U. Role of traditional medicine in primary health care: an overview of perspectives and challenging. 横浜国際社会科学研究= Yokohama journal of social sciences. 2010 Feb 20;14(6):57-77

Rudra S, Kalra A, Kumar A, Joe W. Utilization of alternative systems of medicine as health care services in India: Evidence on AYUSH care from NSS 2014. PloS one. 2017 May 4;12(5):e0176916.

Sriram, S., & Albadrani, M. (2022). Impoverishing effects of out-of-pocket healthcare expenditures in India. *Journal of family medicine and primary care*, *11*(11), 7120–7128. https://doi.org/10.4103/jfmpc.jfmpc_590_22

Wagstaff A, Eozenou P, Smitz M. Out-of-pocket expenditures on health: a global stocktake. The World Bank Research Observer. 2020 Aug 1;35(2):123-57.

****