ORIGINAL ARTICLE

Perception of international patients regarding cross border movement for medical services in India

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ABSTRACT

Objective: India ranks second as medical travel destination in the world after Thailand, but still a very limited research has been done so far to assess the perception of international patients regarding travel to India for medical services. Objective: To assess the perception of the patients coming across international borders regarding their preference to chose India for medical services.
Methods: This was a cross sectional hospital based study which was conducted for a period of 3 months. It was an analytical type of research where 100 international patients were interviewed from 11 different hospitals spread across whole India (representing North and South India). A semi-structured interview scheduled with a five point Likert type scale was used fulfill the objective of the study.
Results: More than 80% of patients were agree with the fact that there is deficiency of quality of care and proper infrastructure in health facilities in their country. majority (> 80%) of patients were strongly agree or agree to the facts that India has top qualified medical professionals and latest technology for treatment, there is less waiting time for treatment procedure and the treatment is cost effective.
Conclusion: Considering the perception of international patients, there is need and scope to improve and expand the health service delivery in India to reap the benefits of medical travel to the maximum possible extent.

Key Words: Health service, International patients, Medical travel

1. INTRODUCTION

1.1 Background

Healthcare sector in India has progressed at an impressive pace over the past five years and the "medical travel" has proved as a major growth factor for the expansion of Indian economy. As a silent revolution, medical tourism industry has become one of the fastest growing service sectors of 21st century. India ranks second as medical travel destination in the world after Thailand by hosting around 1.5 lac medical tourists annually, and this number is expected to grow by 15 percent every year.[1,2] This growing medical tourism has also given opportunity for re-emergence of traditional medical care in India. A lot of efforts have been made by Government of India in the direction of making healthcare services at par with international standards. Along with diversity of tourism destinations and experiences, presence of world-class hospitals, vast supply of skilled medical professionals of international reputation, quality service at affordable cost, strong presence in advanced healthcare, high success rate in treatment, less waiting time in the hospitals and patronage of age old therapies has strengthened India's position as a preferred destination for medical tourism.[3] But still a very

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limited research has been done so far to assess the perception of international patients regarding travel to India for medical services. With this background this study has been planned with the following objective.

1.2 Objective

To assess the perception of the patients coming across international borders regarding not preferring their native country and choosing India as preferred destination for medical services.

2. METHODS

2.1 Period of study

This study was conducted for a period of 3 months. Initial 2 weeks were utilized for extensive literature search, designing and finalization of interview schedule and getting ethical clearance. Next two months were utilized for data collection, data entry and quality check. Data analysis and write up has been done in last two weeks.

2.2 Study design

A cross sectional hospital based study design has been adopted for this study.

2.3 Sampling methodology

It was an analytical type of research where it was targeted to interview 100 international patients from 10 different hospitals spread across whole India (representing North and South India). A sample size of 100 was targeted due to limited resources. The selections of hospitals and patients were done by non-probability purposive sampling.

2.4 Tools and techniques

A semi-structured interview scheduled was used to fulfil the objective of the study. A five point Likert type scale was used to assess the perception of selected patients regarding not preferring their native country and choosing India as preferred destination for treatment purpose. The scale was rated 5 for strongly agree (SA), 4 for agree (A), 3 for neither agree nor disagree (NAD), 2 for disagree (D) and 1 for strongly disagree (SD). Ten variables for each category (perception regarding not preferring their native country and perception about choosing India as preferred destination) were finalized to include in the schedule. At the outset Medical Superintendents of the hospitals was contacted and explained about the purpose of the study. Both verbal and written consents were taken from the patients/participants before conducting the interview.

2.5 Analysis of data

Data thus generated was analyzed using Microsoft excel 2007 and SPSS v.16 software. Appropriate tables and graphs have been generated to draw the inferences.

2.6 Ethical clearance

This study was prior approved by Institutional Review Board of Vydehi Institute of Medical Sciences and Research Centre, Bangalore.

Table 1. Demographic profile of the respondents

Variables	Frequency	Percent
Age distribution of respondents		
Paediatric age group (up to 14 years)	9	8.5
Young/adult age group (15 to 60 years)	85	81.0
Geriatric age group (60+ years)	11	10.5
Sex distribution of respondents		
Male	69	65.7
Female	36	34.3
Total	105	100.0

Table 2. Distribution of patients as per their country of permanent residence

Region	Number	%	Country	Number	%
Asia		55.2	Afghanistan	2	1.9
			Bangladesh	47	44.8
			Maldives	3	2.9
			Nepal	4	3.8
			Sri Lanka	1	1.0
			Uzbekistan	1	1.0
USA	3	2.9	Canada	1	1.0
			New York	1	1.0
			USA	1	1.0
Africa	34	32.4	Congo	1	1.0
			Nigeria	8	7.6
			Kenya	2	1.9
			Rwanda	8	7.6
			South Africa	1	1.0
			Tanzania	7	6.7
			Uganda	7	6.7
European Union	1	1.0	Hungary	1	1.0
Middle East	9	8.6	Iraq	4	3.8
			Oman	1	1.0
			Saudi Arabia	1	1.0
			Yemen	3	2.9
Total				105	100.0

3. RESULTS

A total of 105 international patients could be interviewed against the target of 100. Out of those majority (81.0%) were

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in young/adult age group (15 to 60 years), followed by 10.5% and 8.6% in geriatric (60+ years) and paediatric (up to 14 years) age groups, respectively. Around two thirds (65.7%) of respondents were male (see Table 1).

Table 2 reflects the distribution of the respondents as per their native country. The patients who could be enrolled in the study were representing 21 different countries around the world. Majority of the patients who could be enrolled in the study were from Asia (52.2%), Africa (32.4%) and Middle East (8.6%) countries. Country wise, majority (45) were belonging to Bangladesh, followed by Nigeria (8), Rwanda (8), Tanzania (7), Uganda (7), Nepal (4) and Iraq (4).

Table 3 depicts the distribution of patients as per the hospital and the State in which they were receiving treatment The respondents selected in the study were from 10 different tertiary care hospitals spread across 5 states of India; namely Karnataka, Telangana, Kerala, Maharashtra and Delhi. Maximum number of patients could be interviewed from Karnataka (74.3%), followed by Telangana (14.3%), Delhi (7.6%), Maharashtra (2.9%) and Kerala (1.0%).

Table 3. Distribution of respondents as per the hospital and State in which they were receiving treatment

State	Hospitals	Patients Interviewed (N)	Patients Interviewed (%)
Karnataka	4	78	74.3
Telangana	2	15	14.3
Kerala	1	1	1.0
Maharashtra	1	3	2.9
Delhi	2	8	7.6
Total	10	105	100.0

Figure 1 represents the distribution of the interviewed patients according to different departments of hospitals in which they were admitted during the survey. Patients selected for the study were from almost all kinds of clinical departments in hospitals. But more than half of the interviewed patients were receiving treatment in General Medicine (19%), CTVS (12%), Nephrology (9%), Neurology (8%), Cardiology (7%) and Orthopaedics (7%).

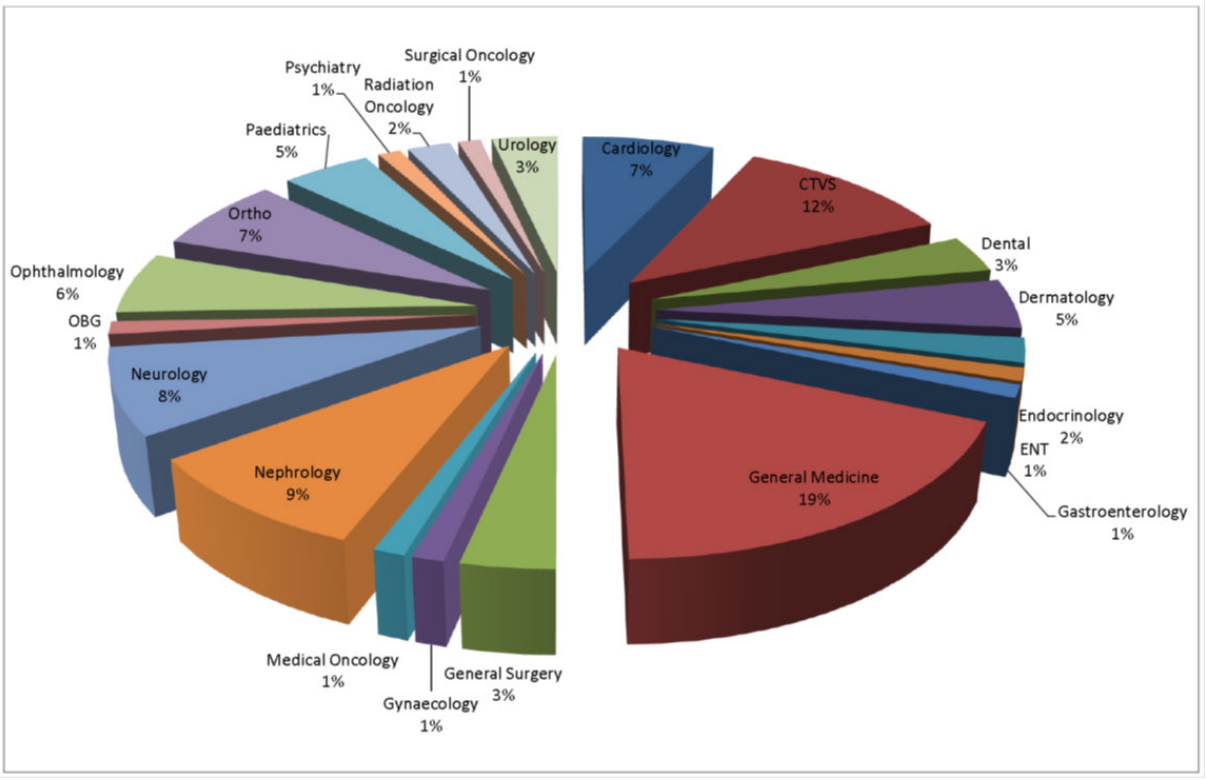

Figure 1. Distribution of respondents according to the departments in hospitals

Table 4 demonstrates the perception of patients regarding not preferring their native country for treatment purpose. It is evident from the table that, nearly 25% and 20% patients were strongly agree and agree, respectively, that the required treatment was not available in their country. More than 80% of patients were strongly agree or agree with the fact that quality of care is not available in their country. Similar proportions of patients were agreeing that there is deficiency

of proper infrastructure in health facilities in their country. Around three fourth of patents accepted that lack of qualified medical professionals in their native country was the reason of not preferring their own country for the treatment. As much as one third of patients were not aware about the available treatment facilities in their country, so moved to India for the treatment. Similar number of patients perceived lack of connectivity or transport as the main reason of moving out for treatment purpose. Half of the patients were having issues related to existing Government support or available insurance in their country of residence. Majority (84.3%) of the patients had considered the problem of long waiting time for treatment procedure, as the factor responsible for moving out from their country. Higher cost of the treatment was also a deciding factor for around three fourth of patients for not preferring their own country for treatment. Around 20% of patients were having perception of insecurity in their country due to terrorism, political instability, epidemics etc., which compel them to cross the international border for treatment procedure.

Table 4. Perception of patients regarding not preferring their native country for treatment purpose

Variables	SD	D	NAND	A	SA	Total	Score	
	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	Mean	Mode
Non availability of treatment	7 (6.8)	22 (21.4)	28 (27.2)	20 (19.4)	26 (25.2)	103 (100.0)	3.3	3
Non availability of quality care	7 (6.7)	6 (5.8)	6 (5.8)	51 (49.0)	34 (32.7)	104 (100.0)	4.0	4
Lack of infrastructure in health facilities	6 (5.8)	13 (12.5)	2 (1.9)	53 (51.0)	30 (28.8)	104 (100.0)	3.8	4
Lack of qualified medical professionals	5 (4.9)	13 (12.7)	9 (8.8)	44 (43.1)	31 (30.4)	102 (100.0)	3.8	4
Lack of awareness	4 (3.9)	29 (28.4)	33 (32.4)	16 (15.7)	20 (19.6)	102 (100.0)	3.2	3
Lack of connectivity/transport	4 (3.9)	30 (29.4)	35 (34.3)	18 (17.6)	15 (14.7)	102 (100.0)	3.1	3
Lack of government support/insurances	1 (1.0)	15 (14.7)	38 (37.3)	23 (22.5)	25 (24.5)	102 (100.0)	3.5	3
Long waiting period	2 (2.0)	12 (11.8)	2 (2.0)	52 (51.0)	34 (33.3)	102 (100.0)	4.0	4
Cost factor	8 (7.7)	9 (8.7)	13 (12.5)	35 (33.7)	39 (37.5)	104 (100.0)	3.8	5
Internal problems in the country (terrorism, political instability, epidemics etc.)	42 (40.8)	23 (22.3)	18 (17.5)	6 (5.8)	14 (13.6)	103 (100.0)	2.3	1

Table 5 demonstrates the perception of patients regarding choosing India as preferred destination for treatment purpose. It is evident from the table that, majority (more than 80%) of patients were strongly agree or agree to the facts that that India has top qualified medical professionals and latest technology for treatment, there is less waiting time for treatment procedure and the treatment is cost effective. Besides that, most of them (more than 80%) had accepted that India has great hospitality for guests. Around two third of patients were attracted towards brand name and accreditation status of the hospital. Hospital affiliations were also found to play a crucial role in attracting foreign patients as this fact was well accepted by 70% of patients. None of the patient was agreeing with the facts that travel to India for treatment purpose is not affordable. Even though having basket of services with the combination of allopath and AYUSH streams in Indian healthcare service delivery for international patients, more than 40% of patients were disagree with this fact, and similar proportion of patients did not comment anything on this issue. Comfortable situation with social factors prevailed in India like, educational status, demography, language were also responsible for attracting around one third of patients across international borders, but similar proportion of patients were disagreeing with this fact. Majority (> 90%) of interviewed patients had agreed that they were referred by their relatives, friends or other organizations.

4. DISCUSSION

Majority of the patients in the present study were in young/adult age group (15 to 60 years) and around 10% were in geriatric age group. This age distribution of patients is very much similar to the study conducted by Indian Institute of Tourism and Travel Management in 2011.[4] In the present study majority of the patients were from Asia, Africa and Middle East countries. Among them, majority were belonging to Bangladesh, followed by Nigeria, Rwanda, Tanzania,

Uganda, Nepal and Iraq. Almost similar kind of country wise distribution for the inflow of international patients has been shown by Chaudhary M and Agrawal A (2014)[5] in their study in Delhi NCR, and reflected that 60 per cent inflow of international patients was from African and Middle Eastern countries. The findings can also be supported by the study conducted by Bhangale V (2015),[6] which has shown that maximum numbers of patients coming to India for medical treatment were from Bangladesh and Sri Lanka. Study conducted by Maheshwari S et al. (2012)[7] also noted that majority of the international patients in their study were from Malaysia (45%), Nigeria (23%), and Tanzania (15%). Male to female ratio of interviewed patients in this study was 2:1, which is contrary to the gender distribution of patients found in many other similar studies.[4,7] This diverse distribution of patients according to the country of origin and sex in different studies may be due to adoption of non-probability sampling in all the studies. Patients selected for the present study were from almost all kinds of clinical departments in hospitals and cardiac treatment was the most preferred treatment by patients. Similar kind of diverse distribution of international patients as per the clinical departments has also been observed by many other studies.[4–6]

Table 5. Perception of patients regarding choosing India as preferred destination for treatment purpose

Variables	SD	D	NAND	A	SA	Total	Score	
	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	Mean	Mode
Top qualified medical professionals and latest technology	0 (0.0)	0 (0.0)	6 (5.9)	44 (43.1)	52 (51.0)	102 (100.0)	4.5	5
Low cost and reasonable medical treatment	0 (0.0)	7 (6.9)	12 (11.8)	41 (40.2)	42 (41.2)	102 (100.0)	4.2	5
Hospital accreditation/brand name	0 (0.0)	5 (4.9)	30 (29.4)	32 (31.4)	35 (34.3)	102 (100.0)	4.0	5
Hospital affiliation	0 (0.0)	5 (4.9)	24 (23.5)	35 (34.3)	38 (37.3)	102 (100.0)	4.0	5
Travel is affordable	0 (0.0)	11 (10.8)	25 (24.5)	35 (34.3)	31 (30.4)	102 (100.0)	3.8	4
Hospitality	0 (0.0)	8 (7.8)	12 (11.8)	44 (43.1)	38 (37.3)	102 (100.0)	4.1	4
Package deals/short waiting period	1 (1.0)	3 (2.9)	14 (13.7)	53 (52.0)	31 (30.4)	102 (100.0)	4.1	4
Basket of services (allopath with traditional therapies)	31 (30.4)	12 (11.8)	44 (43.1)	9 (8.8)	6 (5.9)	102 (100.0)	2.5	3
Social elements (education demography, language)	16 (15.7)	13 (12.7)	41 (40.2)	19 (18.6)	13 (12.7)	102 (100.0)	3.0	3
Referred by relatives, friends, organizations & agents	2 (2.0)	1 (1.0)	7 (6.9)	21 (20.6)	71 (69.6)	102 (100.0)	4.5	5

Nearly half of the patients in this study were agreeing that the required treatment was not available in their country of origin. This finding is well supported by the study conducted by Maheshwari S et al., 2012.[7] But as much as one third of patients were not aware about the available treatment facilities in their country, so moved out for the treatment. Further more than 8 out of 10 international patients were strongly agree or agree with the fact that non availability of quality of care in their country is the factor responsible for not preferring their own country for treatment. Mochi P et al. (2013)[8] have supported the findings of the present study by stating that "patients consider the quality of medical care during the treatment, because medical standards may vary widely from one medical care facility to another and from one country to another". Healthcare advancements has also been graded as a significant factor for medical travel by Varghese B (2013).[9] On the other hand, Pierini E. et al. (2015) demonstrated that the competition to attract patients leads to an increase in the quality of the service.[10]

Higher cost of the treatment was also a deciding factor for around three fourth of patients in the present study for not preferring their own country for treatment. In the study of Varghese B (2013),[9] 46.7 percent of the patients graded cost to be a significant factor for crossing international borders for treatment purpose. Chaudhary M and Agrawal A. (2014)[5] have also documented that the healthcare sector is not developed in African countries like Nigeria and Tanzania and this makes either the treatment unavailable or very costly there and has shown that low cost of treatment was one of the reason of patients coming to India. Mochi P et al., 2013[8] have compared cost of different treatment procedures across different countries and concluded that complicated

surgeries and treatment are possible at almost 1/10th the cost of developed countries in developing countries like India. Many other studies have also concluded that cheaper cost of treatment and better expertise was the prominent reason for choosing India for treatment purpose.[6,7,11] Thus the findings of the present study are supporting the famous slogan, "First World treatment' at Third World prices".

Around three fourth of patents accepted that there is lack of qualified medical professionals in their native country and that was the reason of not preferring their own country for the treatment. Simultaneously majority (more than 80%) of patients were agreed to the facts that that India has top qualified medical professionals for treatment. This finding is supported by the studies of Mochi P et al. (2013)[8] and Maheshwari S (2012).[7] Varghese B (2013)[9] also identified contribution of physician's credentials for demand of medical tourism in India. Chaudhary M and Agrawal A. (2014)[5] also found the competency of doctors and paramedical staff is an important factor for growth of medical tourism in the country. Messina G et al. (2013) have also highlighted that patient mobility is influenced by active choice on the part of a patient, possibly guided by his/her GP.[12]

Long waiting time for treatment procedures was also identified as one of the factors responsible for moving out of patients from their country. This can be well supported by the fact that in developed countries patients have to wait for the major surgery sometime more than few months and in this regard India have almost zero waiting tome for surgeries.[5,8] In India availability of top qualified medical professionals and latest technology for treatment, less waiting time for treatment procedure and cost effectiveness of the treatment were important factors considered by interviewed patients. Excellent medical treatment and treatment services have also been heilighted by majority of patients in the study conducted by Shaikh ZM and Khan G (2009).[13]

According to Mochi P. et al. (2013),[8] infrastructure is a major concern affecting India as a destination for medical travel. Contrary to this, in the present study, near about 80% of patients were agreeing that there is deficiency of proper infrastructure in health facilities in their own country. Availability of good quality clinical infrastructure in India has also been scored high (4.2 out of 5) by the patients enrolled in the study of Chaudhary M and Agrawal A. (2014).[5] Role of infrastructure in attracting patients has also been highlighted by Nante N et al. (2016).[14] In the present study half of the patients highlighted the issues related to existing Government support or available insurance in their country of residence. Chaudhary M and Agrawal A. (2014)[5] have also stated in their study that insurance cover in another country by Indian insurance companies has been identified as important factor for taking treatment in India.

Compliance with quality expectations through accreditation of hospital provides tourists with confidence that the services are meeting international standards. Around two third of patients in this study were attracted towards brand name and accreditation status of the hospital. The importance of International Accreditation of hospitals has also been highlighted in the study of Chaudhary M and Agrawal A. (2014).[5] Varghese B (2013)[8] showed 31.4% to 48.5% contribution of this factor for demand of medical tourism in Southern part of India and has also proved that there is no difference in the importance of various parameters of quality assurance among medical tourism destinations. Present study is limited in this aspect.

Majority of the patients in the present study were either disagree or had not commented anything regarding attractive 'basket of services' with the combination of allopath and AYUSH streams in Indian healthcare service delivery for international patients. This may be due to lack of exposure provided to them for AYUSH treatment due to kind of disease and treatment required for that.

More than 8 out of 10 patients in the present study had accepted that India has great hospitality for guests. This finding is well supported by Mochi P et al. 2013[8] by using the famous words "Atithi Devo Bhava" In India. Around one third of patients were disagreeing with the fact that language and other social factors prevailed in India were responsible for attracting them across international borders. This has also been highlighted by Mochi P et al. 2013[8] that language and culture barriers pose major challenge in medical tourism in India. But simultaneously similar proportions of patient were disagreeing with this fact in the present study. As English is widely spoken language in India and almost all hospitals have good English speaking staff.

Majority (> 90%) of interviewed patients in the present study had agreed that they were referred for treatment in India by their relatives, friends or other organizations. The finding is contrary to the findings of the study conducted by Chaudhary M and Agrawal A. 2014,[5] which sated that most of the patients had contacted the hospitals directly or through their doctors. Bhangale V. (2015)[6] also found word of mouth (from other patients) as the most important source of information for patients coming to India for medical treatment.

5. Conclusion

Based on the findings it can be concluded that non-availability of required treatment, deficiency in quality of care, not having proper infrastructure in health facilities, lack

of qualified medical professionals, issues related to existing Government support or available insurance and problem of long waiting time for treatment procedure were major factors perceived by patients for not preferring their own country for treatment and crossing the international borders for this purpose.

As far as about the perception of patients regarding choosing India as preferred destination for treatment purpose is considered, having top qualified medical professionals and latest technology for treatment, less waiting time in hospitals for treatment procedure, availability of cost effective treatment, deep rooted culture of providing great hospitality for guests, affiliations and quality accreditations of hospital along with their brand value and affordable travel to India, were the major factors found attracting international patients in the country.

Limitations of the study

Sample size was a limitation due to limited resources, such as limited amount of time, and budget constraints. Besides that, the selection of hospitals and patients was also done by non-probability purposive sampling.

CONFLICTS OF INTEREST DISCLOSURE

The authors declare they have no conflicts of interest.

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