



Original Article

Medical Care Avoidance (MCA): Evidences from Geriatric Health Care in India

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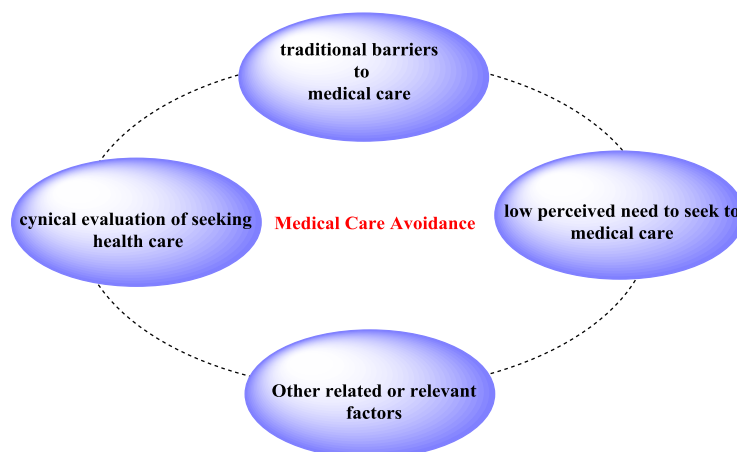
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ABSTRACT

Even after sufficient potential in the health sector for treatment; people avoid taking its benefits. People avoid timely medical help, which ultimately leads to delay in proper diagnosis and treatment, which further increases the chances of more complications. The objectives of the present paper are to understand the various factors that lead to medical care avoidance among older people and to provide suggestions based on the findings of the study. For the analysis of the data comprising of 393 older people over the age group of 60 and includes 219 male respondents and the rest were female respondents. The present analysis was done under four broad parameters related to a low perceived need to seek medical care, traditional barriers to seeking medical care, cynical evaluation of seeking health care and other related or relevant factors. In total 60 variables were considered under various categories. It was found that family members were actively involved in providing medical care. There was some barrier in communication between the patient and the health care provider either due to language or the technicalities involved. It was perceived that the health care providers were prescribing unnecessary tests and medication and were more concerned about their fees rather than patients' welfare. The fear of pain, monetary drain, lack of health insurance and other related factors leads to medical care avoidance by the elderly male and female patients.

GRAPHICAL ABSTRACT



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Introduction

It is being observed that people avoid medical care or consultation with physicians even though they understand the seriousness and understand the necessity of the treatment [1-4]. Even if a person has serious health issues [5,6] or exhibits symptoms of chronic disease, they avoid medical treatment and follow-ups [7,8]. The avoidance of medical care leads to delay in detection of disease reduces recuperation or survival chances and contributes more to human sufferings [5,9,10]. Avoidance of medical care refers to staying away from the protocol treatment resulting in mental or physical distress to the patient and family. Medical avoidance may also result from barriers such as financial constraints or time constraints [1,11]

Avoidance of medical care can occur at any point of the disease continuum, including at the stage of prevention and detection of a symptomatic disease, noticing their symptoms and interpreting its significance, seeking care after determining a potential need, and complying with the prescribed treatment [12]. In another study it identified that factors such as low trust in doctors, health provider set up, non-serious approach towards the diagnosis and the prescribed line of treatment, emotional factors (e.g., denial, avoiding worry, embarrassment, practical barriers, and prior negative experiences as contributing to medical avoidance. [10]

Medical care avoidance will have a more adverse impact on the high-risk patients, especially the elderly population, who need more attention for the health care than the comparatively younger generation. This geriatric population requires immediate medical attention from health care providers. [13]. Older adults are generally sicker, have a poor health-related quality of life [14,15], take more medications (over-the-counter or otherwise prescribed) (e.g. 29% report using at least five prescribed medications concurrently; [16,17], and have a higher prevalence of multiple chronic conditions (including life style based conditions such as hypertension and diabetes) than their younger counterparts [18]. Few studies have examined medical care avoidance specifically among older adults. Although some

studies have examined patient delay among older adults, these studies typically focus on specific diseases or patients who already have a health condition. Prior studies have examined characteristics of and reasons for avoidance among older and younger adults who avoid medical care. Medical care avoidance was higher among less educated, had lower income were relatively younger, lacked health insurance, and had high perceived risk and worry about cancer (Table 1) [19].

Objectives of Study

1. To understand the various factors responsible for medical care avoidance among the geriatric population
2. To provide suggestions based on the findings of the study.

Scope of the study

The present study is restricted to old age people above 60 years. The capital regions of Odisha have been taken to collect data, including Bhubaneswar, Cuttack, Khorda and Puri.

Sample size determination for unknown populations

$$N = Z^2 (P) (1-P) / C^2$$

$$= (1.96)^2 (0.5) (1-0.5) / (0.05)^2$$

$$= 384$$

Where,

Z= Standard normal deviation set at 95% confidence level is 1.96

P= Percentage picking choice or response is 0.5

C= Confidence interval is 0.05

In Table 2 from the total respondents 47.58% of male and 33.33% of female respondents, avoided medical care, and similarly, 8.14% of male and 10.95% of female respondents did not avoid the medical care. Of the married respondents of male 68.45% avoided and 20.87% did not avoid; similarly unmarried participants 6.11% avoided and remaining 4.57% did not avoid medical care. From the education point of view, the avoided cases from below 10th standard, below 12th standard, below graduation and above graduation were 33.84%, 13.23%, 8.40% and 4.59% respectively and from non- avoiding cases for the same category were 13.74%, 9.67%, 11.70% and 4.83%. From the house hold income

category point of view the medical care avoidance cases for below Rs10,000, between Rs10,000- Rs20,000, between Rs20,000- Rs30,000 and above Rs30,000 were 13.49%,10.69% and 15.01% respectively and for the non avoidance cases were 10.94%,11.70%, 9.92% and 6.11%.

Table 1: Review of Literature

Serial number	Year	Authors	Findings / Observations
1	2011	Carilo J.E. <i>et al.</i> [20]	The psychological barriers of Medical care avoidances are lack of insurance and fear of diagnosis
2	2002	Facione N.C. <i>et al.</i> [21]	Delay in medical care or medical care avoidance leads to deterioration of health and late stage breast cancer detection
3	2012	Altice N.F. <i>et al.</i> [22]	Delay in MCA leads to serious cardio related diseases along with others
4	2007	Mercer C.H. <i>et al.</i> [23]	Medical care avoidance leads to increased cost of hospitalization due delay in treatment and increases sexually transmitted diseases
5	1998	Philips K.A. <i>et al.</i> [24]	Avoidance may be due to socio demographic factors, personal preference, attitudes, social and work expectations, ability to pay health care and prior perceived experience of health care providers
6	2004	Moore P.J. <i>et al.</i> [25]	Lower perceived quality of doctor and patient relationship was one of the factors for medical care avoidance
7	2007	Crosby R.A. <i>et al.</i> [26]	Many rural communities are characterized by higher concentrations of ethnic minorities, persistent poverty, historical discrimination, poor health care infrastructure, and designation as health professional shortage areas by the federal government
8	2004	Philips C.D. <i>et al.</i> [27]	Rural residents may have further distances to travel for care due to physical terrain compared to their urban counterparts
9	2006	Behringer B. <i>et al.</i> [28]	Rural mass were more reluctant to take the benefitsof medical care as compared to urban population.
10	2004	Philips C.D. <i>et al.</i> [27]	Lower rate of seeking medical information and their own beliefs towards health care leads to medical care avoidance
11	2007	Cantor D. <i>et al.</i> [29]	Rural residents have reported greater difficulties in navigating the health care system, poorer patient-provider relationships (primarily due to mistrust), and lack of culturally competent health care services, which in turn influences their overall satisfaction with the health care system

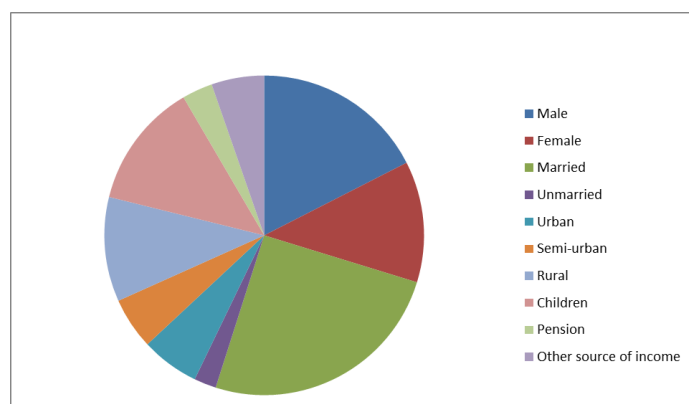
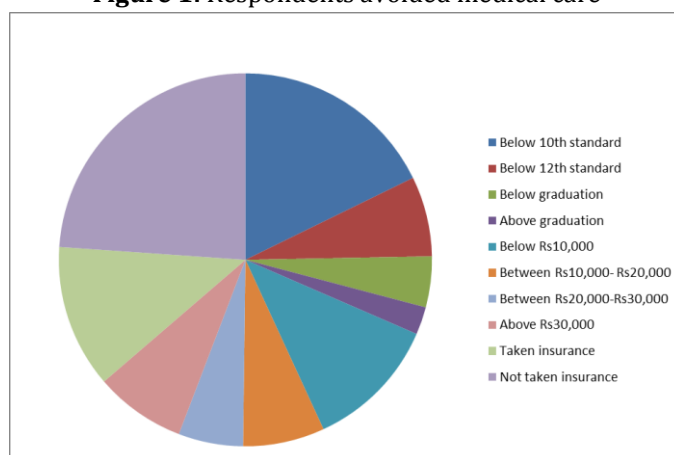
From the health insurance point of view, the avoidance cases of medical care after taking insurance were 23.66% and non- avoidance cases were 17.05%. Similarly those who have not taken the insurance and avoided the medical care were 45.55%, and not avoid the medical care without insurance were 13.74%. From the population density context, the avoidance from urban, semi urban and rural were 16.03%,14.25% and

28.75% respectively and for the non avoidance from the same composition was 12.21%, 9.92% and and 18.84% respectively. In case of dependency on children, pension and other source of income for the avoiding cases were 34.61%, 8.40% and 14.50% respectively and the same for the non avoidance cases were 17.30%, 15.78% and 9.41% (Figures 1-4).

Table 2: Details of the respondents who Avoided and not avoid the medical care

Items	Avoided	%	Not avoided	%
Gender				
Male	187	47.58	32	8.14
Female	131	33.33	43	10.95
Marital status				
Married	269	68.45	82	20.87
Unmarried	24	6.11	18	4.57
Education				
Below 10 th standard	133	33.84	54	13.74
Below 12 th standard	52	13.23	38	9.67
Below graduation	33	8.40	46	11.70
Above graduation	18	4.59	19	4.83
Household income				
Below Rs10,000	87	22.14	43	10.94
Between Rs10,000- Rs20,000	53	13.49	46	11.70
Between Rs20,000-Rs30,000	42	10.69	39	9.92
Above Rs30,000	59	15.01	24	6.11
Health insurance				
Taken insurance	93	23.66	67	17.05
Not taken insurance	179	45.55	54	13.74
Population density				
Urban	63	16.03	48	12.21
Semi-urban	56	14.25	39	9.92
Rural	113	28.75	74	18.84
Dependency				
Children	136	34.61	68	17.30
Pension	33	8.40	62	15.78
Other sources of income	57	14.50	37	9.41

Source: Primary data

**Figure 1:** Respondents avoided medical care**Figure 2:** Respondents avoided medical care

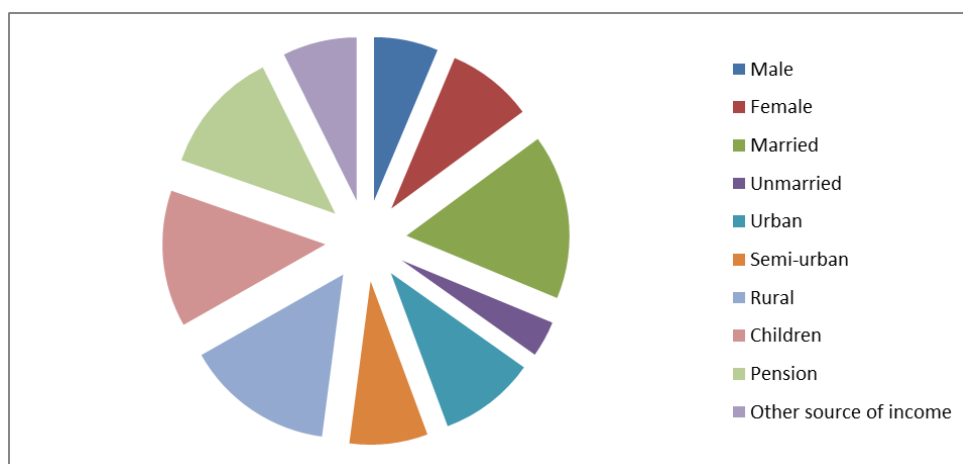


Figure 3: Respondents not avoided medical care

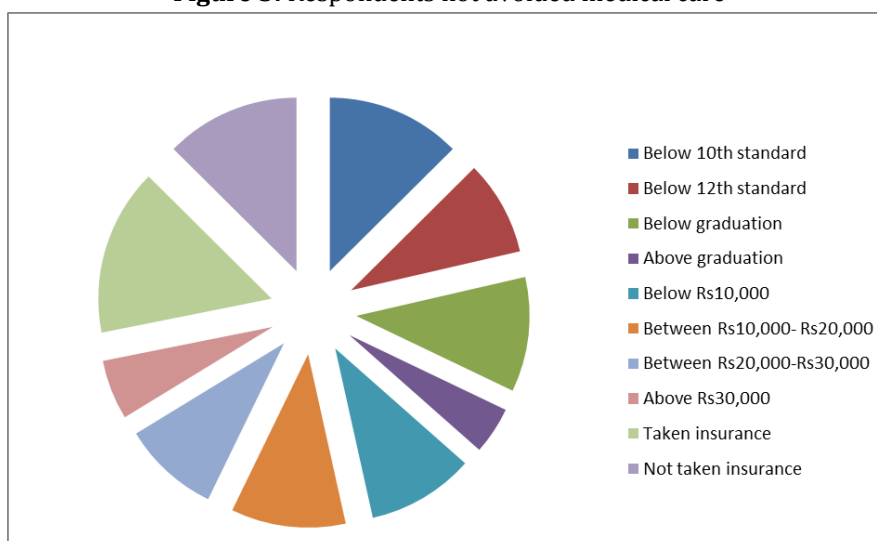


Figure 4: Respondents not avoided medical care

Methods

The present research is based on both primary and secondary data. Primary data was collected from the old age patients of rural, semi-urban and urban areas of study areas. The study was conducted over a 5 months. The attributes or variables arrived from the 12 core group discussions consisting 10 members each and it includes female members also, in all 60 attributes identified for the study from core group and review of the literature. It includes 9 attributes related to low perceived need to seek medical care, 13 attributes related to traditional barriers to medical care, 28 attributes related to the cynical evaluation of seeking health care, 10 attributes for other related or relevant factors. Each attributes is measured under 5 point Likert type scale. The completely agree weight 5 allotted, agree weight 4 allotted, neutral stand

weight 3 allotted, weight 2 allotted for the disagree and weight 1 is kept for disagree entirely. For data collection, cluster and random sampling methods were used, even though as per sample size formula 384 was calculated. Still, the actual collection of the sample was 393 in proper and complete form so all the data being used for better representation.

Calculation of respondents' perception: Maximum possible score and Least possible score

Maximum Possible Score (MPS) is calculated by multiplying the number of respondents in such category with (5) and product with a total number of variables. The least Possible Score (LPS) is calculated by multiplying the number of respondents in each category with (1) and the product with several attributes in the group or category (Tables 4-6).

Table 4: Computation of Maximum Possible Score (MPS) and Least Possible Score (LPS)

Category	Attributes related to low perceived need to seek medical care		Attributes related to traditional barriers to medical care		Other related or relevant factors	
	MPS	LPS	MPS	LPS	MPS	LPS
Opinion of old age male respondents	9855	1971	14235	2847	10950	2190
Opinion of old age female respondents	7830	1566	11310	2262	8700	1740

Table 5: Computation of Maximum Possible Score (MPS) and Least Possible Score (LPS)

Category	Attributes related to cynical evaluation of seeking health care									
	Physician factors		Medical factors		Organizational factors		Factors related to affective concern		Factors related to expected cynical outcome	
	MPS	LPS	MPS	LPS	MPS	LPS	MPS	LPS	MPS	LPS
Opinion of old age male respondents	8760	1752	4380	876	4380	876	7665	1533	5475	1095
Opinion of old age female respondents	6960	1392	3480	696	3480	696	6090	1218	4350	870

Table 6: Analysis of Data

Variables	Aggregate score	
	Opinion of old age male respondents	Opinion of old age female respondents
Attributes related to low perceived need to seek medical care		
Believe that disease will improve with the time/ on its own	943	797
Not sick enough	997	772
Does not have health issues	982	776
Tries to take care of self	946	790
Being a medical professional	802	699
Concerned that doctor will think they are hypochondriac	930	786
Prefers spiritual healing	882	825
Prefers natural remedies	930	821
Family provides care	1003	849
Total actual score	8415	7115
Maximum Possible Score	9855	7830
Least Possible Score	1971	1566
% of total actual score to maximum possible score	85.39%	90.87%
Attributes related to traditional barriers to medical care		
Cost is too high	968	819
Not enough time/ too busy	940	830
Lack of health insurance	920	837
Inconvenient clinic hour or working hour of the medical	989	785
Inadequate health insurance	1013	849
Transportation difficulties	912	797
Does not have a doctor	931	850
Health insurance unspecified	978	810
Distance is too far	964	787
Too sick to travel doctor's office	948	837

Continue of Table 6:

Physical and mental conditions prevent from going	923	810
Doctor is inaccessible	914	804
Language barrier	1024	864
Total actual score	12424	10,679
Maximum Possible Score	14235	11310
Least Possible Score	2847	2262
% of total actual score to maximum possible score	87.28%	94.42%
Attributes related to cynical evaluation of seeking health care		
Physician factors		
Interpersonal factors	935	775
Communication issues	1028	788
Does not trust doctors	953	779
Does not like doctors	862	786
Believe doctors do not care about the patients	824	821
Believe doctors are too busy	909	814
Poor relationship with doctors	914	815
Perceives discrimination	940	791
Total actual score	7365	6369
Maximum Possible Score	8760	6960
Least Possible Score	1752	1392
% of total actual score to maximum possible score	84.08%	91.51%
Medical factors		
Low confidence on doctors ability/ expertise	988	821
Believe doctors will prescribe unwanted tests and medication	1050	785
Believe doctors are more concerned for money rather treatment of patients	1037	850
Believe that patients do not get care they needed and deserve from the medicals.	970	790
Total actual score	4045	3246
Maximum Possible Score	4380	3480
Least Possible Score	876	696
% of total actual score to maximum possible score	92.35%	93.28%
Organizational factors		
Long waiting time	959	777
Hassle	901	776
Avoiding sick people	920	817
Dislike of smells	923	826
Total actual score	3703	3196
Maximum Possible Score	4380	3480
Least Possible Score	876	696
% of total actual score to maximum possible score	84.54%	91.84%
Factors related to affective concern		
Fear of bad news	1006	796
Unspecified fear	969	795
Fear of needle	982	803

Continue of Table 6:

Fear of pain	1018	843
Fear of specific procedure	904	782
Embarrassment	923	778
Feels guilty of unhealthy behavior	957	826
Total actual score	6759	5623
Maximum Possible Score	7665	6090
Least Possible Score	1533	1218
% of total actual score to maximum possible score	88.18%	92.33%
Factors related to expected cynical outcome		
Dislike or avoiding medical recommendation	964	814
Cannot take or dislike medication	985	792
Knows will not follow recommendation	969	830
Believe will leave feeling worse	999	797
Does not want to be hospitalized	1052	849
Total actual score	4969	4082
Maximum Possible Score	5475	4350
Least Possible Score	1095	870
% of total actual score to maximum possible score	90.76%	93.84%
Other related or relevant factors		
Unspecified dislikes	928	810
Bad experience in the past with the doctors	1029	782
Not a priority	938	783
Has an untreatable or recoverable illness	974	790
Does not want to share with the doctors related to other treatments	937	827
Does not want symptoms or health problems documented.	879	815
laziness	1017	813
Procrastination	920	793
Stubbornness	984	772
Forgetfulness	992	824
Total actual score	9598	8009
Maximum Possible Score	10950	8700
Least Possible Score	2190	1740
% of total actual score to maximum possible score	87.65%	92.06%

Source: Annexure A and B

Results and Discussion

Regarding attributes related to a low perceived need to seek medical care

In the case of old age male respondents, the reasons for medical care avoidance were family-related as they were the ones who provided the medical care. It got the highest score with 1003, followed by those who are not sick enough, believed that they did not have health issues and

tried to take care of themselves, believe that disease will improve with the time/ on its own, equal score of concerned that doctor will think they are hypochondriac and Prefers natural remedies, prefers spiritual healing and being a medical professional.

Similarly in the case of old age female respondents, the causes of medical care avoidances were as per perception ranking - family providing care, preference for spiritual

healing, preference for natural remedies, belief that disease will cure with time on its own, self-medication, concerned that doctor may think they are hypochondriac and do not have any health concerns and are not sick enough.

In both cases, family providing care variable gets the highest preference (Figure 5).

Regarding attributes related to traditional barriers to medical care

In the case of elderly male /old age patients, language barrier gets the first rank followed by inadequate health insurance coverage, inconvenient clinic timings or working hours of the health care set up, health insurance is unspecified, medical cost is prohibitive, a distance of medical setup is far, sick to travel doctor's clinic, not enough time/ too busy, do not have a doctor, physical and mental conditions prevent from approaching, lack of health

insurance, a doctor is inaccessible and transportation issues.

Similarly for the elderly/old age female patients the order of rank for the various variables was language barrier followed by do not have access to a doctor, inadequate health insurance, equal rank for no health insurance coverage and being too sick to travel doctor's office, not enough time/ too busy, the cost is too high, equal rank for health insurance unspecified and physical and mental conditions prevent from going, the doctor is inaccessible, transportation difficulties, distance is too far and inconvenient clinic hour or working hour of the health care set up.

However in both cases, language as a barrier is the primary reason for medical care avoidance (Figure 6).

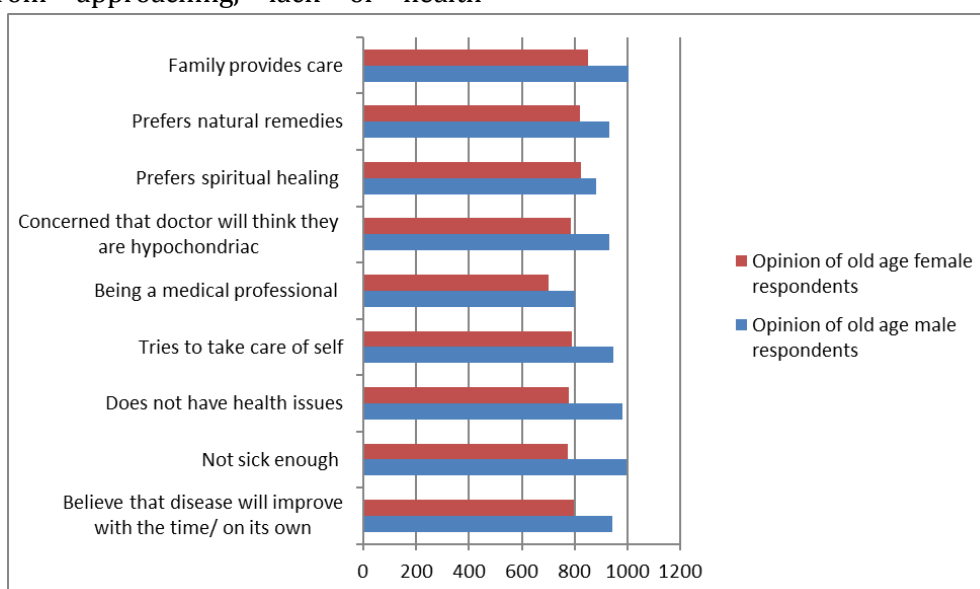


Figure 5: Attributes related to low perceived need to seek medical care

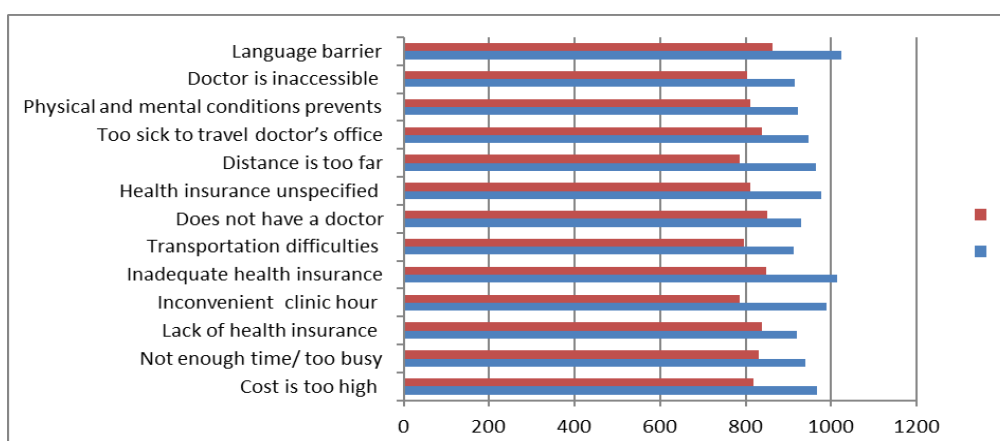


Figure 6: Attributes related to traditional barriers to medical care

Regarding attributes related to the cynical evaluation of seeking health care concerning to the treating Physician

For the female elderly/old age patients, a belief that doctors do not care about the patients had the first rank followed by a poor relationship with doctors, doctors being too busy, perceived discrimination, communication issues, do not like doctors, do not trusting doctors and other interpersonal factors.

For the male old age patients, communication issues stood first, followed by distrusting doctors, perceiving discrimination, interpersonal factors, poor relationship with doctors, belief that doctors are too busy, do not like doctors and belief that doctors do not care about the patients.

Here, for the male elderly/old age patients, communication issues and for female patients, belief that doctors do not care about patients stood the first rank (Figure 7).

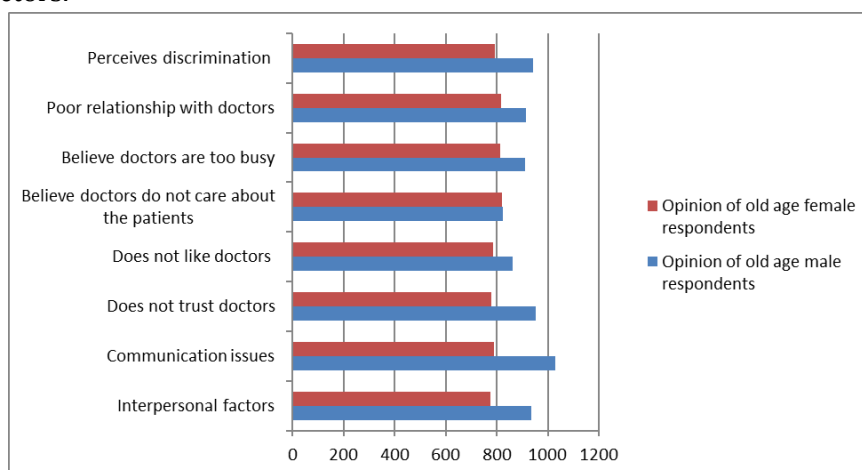


Figure 7: Attributes related to the cynical evaluation of seeking health care @Physician factors

Regarding attributes related to the cynical evaluation of seeking health care @Medical factors

Responding to the queries, in case of male elderly/old age patients; a belief that doctors will prescribe unwanted tests and medication stood the first rank followed by the belief that doctors are more concerned with money/fees rather than treatment of patients, low confidence on doctors ability/ expertise and belief that patients do not get the care and attention they needed and deserve from the medical setup. For the female old age patients, the perception was, a belief that doctors are more concerned for money/fees

rather than the treatment of patients standing first in order, followed by low confidence in doctors ability/ expertise, belief that patients do not get the care they needed and deserve from the medical setup and that doctors will prescribe unwanted tests and medication.

Here for the male elderly/old age patients' belief that doctors will prescribe unwanted tests and medication and for the female old age patient's belief that doctors are more concerned for money/fees rather than treatment of patients stood the first rank (Figure 8).

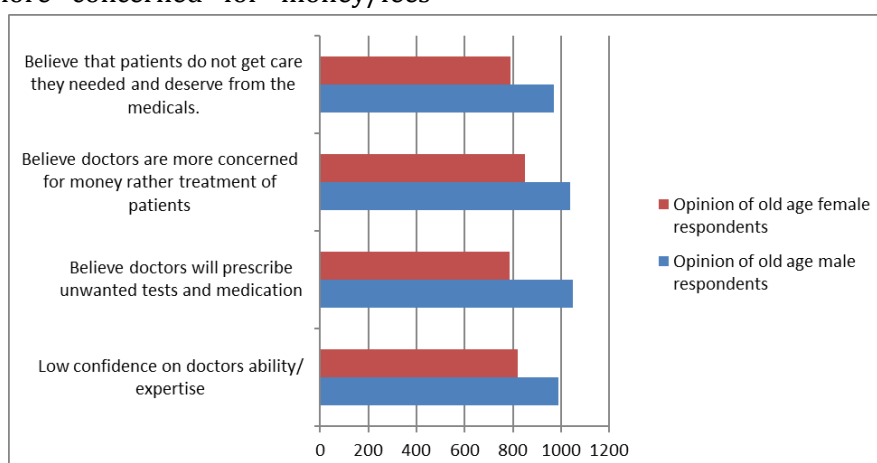


Figure 8: Attributes related to the cynical evaluation of seeking health care @Medical factors

Regarding attributes related to the cynical evaluation of seeking health care@ Organizational factors

For the male elderly/old age patients, long waiting time stood first in order of ranking followed by dislike of odor/smells, avoiding other

sick people in the health care set up and hassle associated with seeking treatment. For the female respondents, dislike of odor/smells stood first, avoiding sick people, long waiting time and hassle (Figure 9).

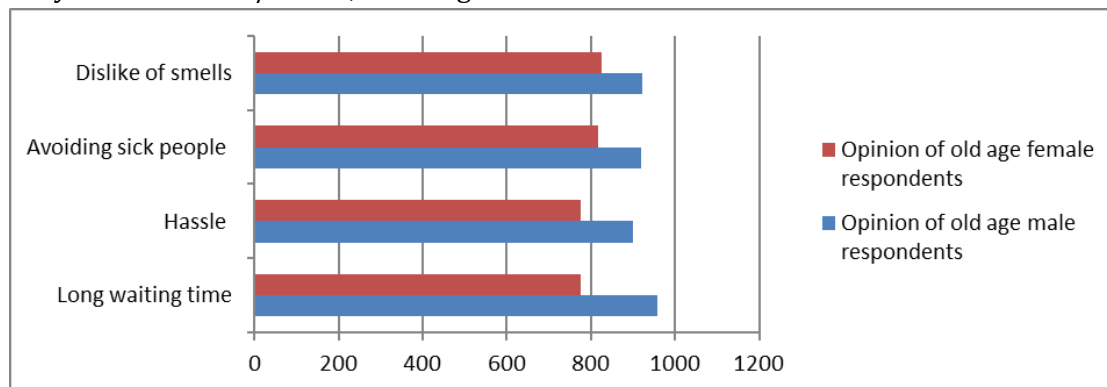


Figure 9: Attributes related to the cynical evaluation of seeking health care-Organizational factors

Regarding attributes related to the cynical evaluation of seeking health care@ Factors related to affective concern

In the case of female elderly/ old age patients, fear of pain associated with seeking medical help stood first in the order of ranking, followed by a feeling of guilt of unhealthy behavior, fear of injection needle, fear of bad news, unspecified fear, fear of specific procedure/medical protocol

and embarrassment. For the male elderly/old age patients, fear of pain stood first in order, followed by fear of bad news, fear of injection needle, unspecified fear, feeling of guilt of unhealthy behavior, embarrassment and fear of specific procedure/medical protocol.

In both cases fear of pain stood the first rank for medical care avoidance (Figure 10).

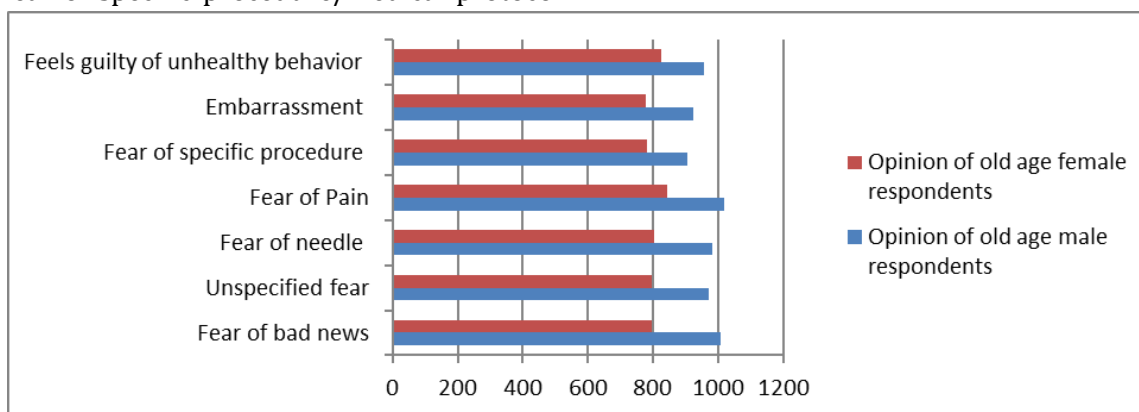


Figure 10: Attributes related to the cynical evaluation of seeking health care-Factors related to affective concern

Regarding attributes related to the cynical evaluation of seeking health care@ Factors related to expected cynical outcome

The attribute that stood first in order amongst the elderly/old age female patients was that they preferred not to be hospitalized followed by the attribute that they knew they would not follow the recommendation, dislike or avoiding medical recommendation, belief that they would feel worse and cannot take or dislike medication. In

the case of male elderly/ old age patients, the first rank in order was that they did not want to get hospitalized followed by the belief that they would be left feeling worse, cannot take or dislike medication, know that they will not follow or dislike or avoiding medical recommendation.

In both cases, the segments do not want to get hospitalized ranked first as preference and dislike or avoiding medical recommendation was the last preference (Figure 11).

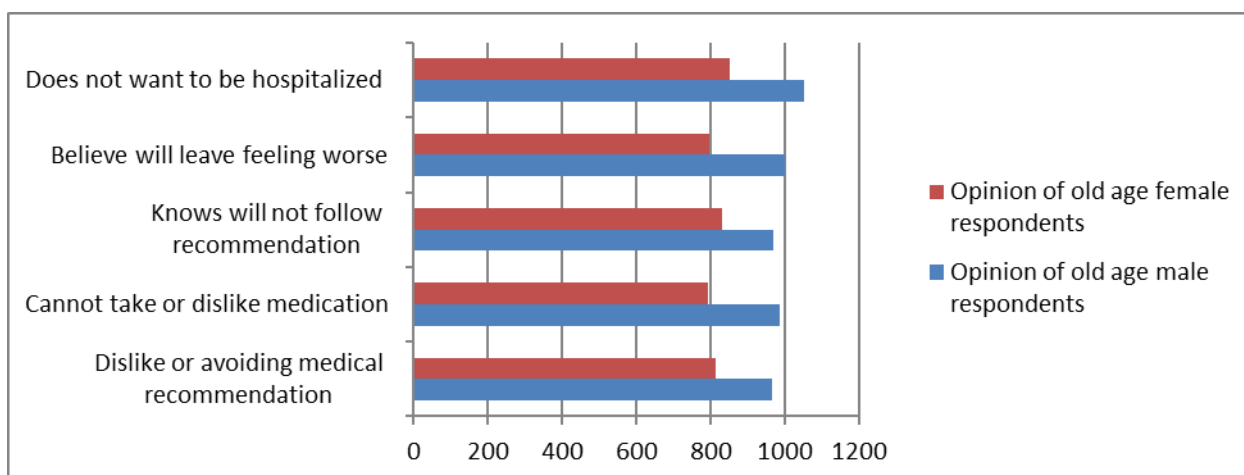


Figure 11: Attributes related to the cynical evaluation of seeking health care- Factors related to expected cynical outcome

Regarding other related or relevant factors

In case of the response of the old age/elderly male patients, bad experience in the past with the doctors stood the first in order of ranking followed by laziness, forgetfulness, stubbornness, an untreatable or recoverable illness, not a priority, do not want to share with the doctors related to other treatments, unspecified dislikes and procrastination. Similarly for the old

age/elderly female patients the preference for the variable, do not want to share with the doctors related to other treatments stood first in order of ranking followed by forgetfulness, do not want symptoms or health problems documented, laziness, unspecified dislikes, procrastination, has an untreatable or recoverable illness, not a priority, bad experience in the past with the doctors and stubbornness (Figure 12).

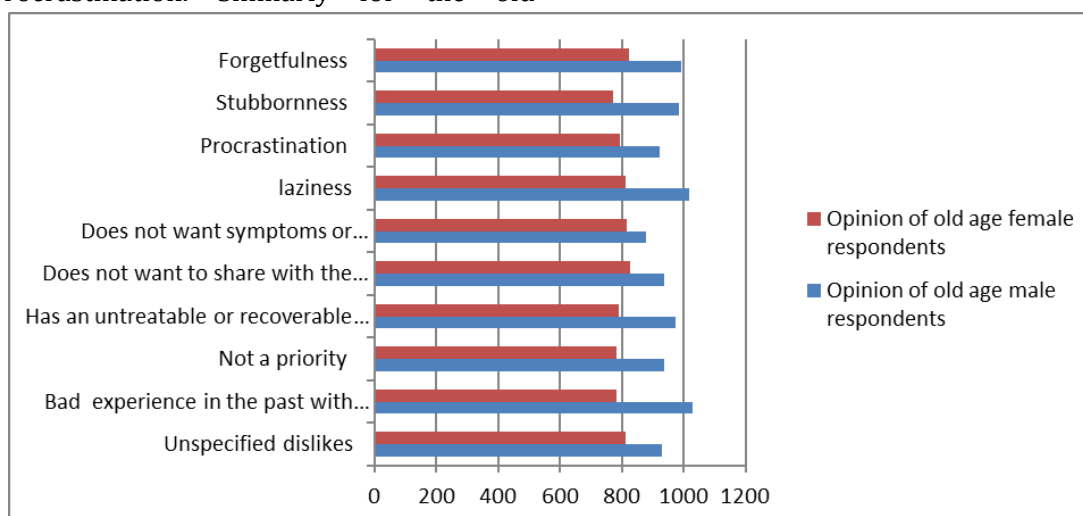


Figure 12: Other related or relevant factors

Suggestions to reduce Medical Care Avoidance (MCA)

- 1) There is a need for change in the old generation/ elderly older people's mindset and need for counselling by the family members and friends for not avoiding the medical care.
- 2) The health care staffs are trying their best but there is a need for more serious effort to address the medical issues related to old age.

3) Need for providing the medical support at a reasonable cost so that this segment of people can take the benefits.

4) Awareness regarding the government - sponsored medical schemes across this segment will help them to take full benefits.

5) The central and state governments are sponsoring health insurance schemes should be appropriately communicated to these old patients.

- 6) The adequate number of medical staffs should be appointed in rural and semi-urban areas.
- 7) Provision for medical transport equipped ambulance needs to be provided to shift the patients during an emergency.
- 8) Health care workers should be provided adequate training to overcome the barriers in language.
- 9) Steps should be taken to improve doctors and nursing staff trust among the old age patients.
- 10) Sufficient and necessary steps should be taken to improve patients' trust towards treatment by the doctors.
- 11) The Physicians/Doctors should prescribe medicines/investigation tests as needed for; proper treatment/diagnosis instead of suggesting irrelevant test that leads to a breach of trust among the patients.
- 12) The hospital environment should be maintained appropriately to avoid foul odor and should follow the sanitization protocol.
- 13) Patient confidentiality should be maintained at all times.
- 14) Unless there is emergency hospitalization should be avoided.
- 15) During hospitalization, only relevant and market-linked charges should be levied and billed to the Insurance Company as per medical treatment protocol.

Conclusions

Old age is very challenging for multiple reasons, especially health issues in our life cycle. In this phase of life, many medical issues are being faced. The primary issue on medical avoidance is prominent for many reasons. Through the present study, the authors tried to understand these factors contributing to medical care avoidance. It was found that old age people preferred self-medication based on their experience. They relied more on family members. The study concludes that the essential factors for avoidance of medical care were financial constraints, lack of health insurance, dependency on children, behavior of doctors and associated health care workers, lack of trust, communication barriers, logistics and unavailability of doctors. This needs to be addressed increasing sessions, and pertinent counselling sessions that increases

mutual trust. Unfortunately, often observed children avoid their responsibilities and do not sufficiently care and accord importance for their elderly parents, which also leads to medical care avoidance. All efforts should be taken from all section of society to come forward to help the elderly in the twilight of their lives for their medical requirements.

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Conflict of Interest : NA

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