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KNOWLEDGE ABOUT GERIATRICS AND ATTITUDE TOWARDS ELDERLY CARE AMONG MEDICAL STUDENTS IN INDIA

General Medicine

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ABSTRACT

Background: With an increasing proportion of the elderly in the population in the near future, it is important that medical students possess the correct knowledge and attitude towards older persons. Examining medical students' knowledge and attitudes towards the elderly will provide valuable information when planning to introduce geriatrics into the curriculum. **Aims &Objectives:** This study aimed to assess the knowledge about geriatrics among medical students and to assess their attitudes towards elderly care. **Materials & Methods:** After obtaining institutional approval, data was collected from 83 final year medical students using a pretested self administered questionnaire consisting of sociodemographic data, knowledge and attitudes towards the elderly of the medical students .Data was compiled using Microsoft Excel and analysed using SPSS 17.0. **Results:** 64.1 % of students had moderate knowledge about geriatrics and 54.2% had positive attitude towards elderly care. None of the students had a "good" knowledge about geriatrics. The mean knowledge score was 21.02±2.82 out of a maximum score of 35 and the mean attitude score was 3.362 ± 0.35 out of maximum score of 5. Female gender, residence in rural area, living with an elderly and joint family showed higher attitude scores. **Conclusion:** The study identifies that medical students lack training in geriatrics during their MBBS course, hence the need for compulsory geriatric postings to be introduced in the curriculum as well as during internship rotations to build an efficient and trained healthcare workforce. Geriatric education is to be provided to every medical graduate so that all doctors at every level of healthcare are equipped to manage this special group with unique needs.

KEYWORDS

knowledge; geriatrics; attitude; medical education; medical students

INTRODUCTION-

Population ageing is the most significant emerging demographic phenomenon in the world today. In 1950, the world population aged 60 years and above was 205 million (8.2 per cent of the population) which increased to 606 million (10 per cent of the population) in 2000. By 2050, the proportion of older persons 60 years and above is projected to rise to 21.1 per cent, which will be two billion in number.

The population of elderly persons in India has increased exponentially from 77 million at the beginning of last century to around 100 million now, forming 9 per cent of total population of the country.(1). Presently, India has around 90 million elderly and by 2050, the number is expected to increase to 315 million, constituting 20 per cent of the total population. As per 'The Report on the Status of Elderly in Selected States of India,2011', Kerala has a high hospitalization rate in the elderly at 18.8% as compared to the national average of 9.8%.[1]

Demands on healthcare services and resources for the elderly are expected to increase with the ageing trends in India. With a greater proportion of the elderly, our doctors will very likely be treating more elderly patients over the years. The burden of chronic, non-communicable diseases is also likely to rise. As more older persons consume more healthcare services, healthcare providers will have to be more aware of the challenges they will face to appropriately care for this segment of the population. For example, care needs to go beyond treatment of the elderly who have lost their health to include disease prevention, and maintaining function and independence in older people.

For medical trainees, the existing literature reveals inconsistent results, with several studies reporting negative attitudes of medical trainees towards old people, particularly first-year medical students[2-4] while others showed neutral or favourable attitudes[2-4]. Ageist attitudes towards older persons can negatively affect patient care, resulting in problems with diagnosis and treatment and dissatisfying communication[5].

RATIONALE OF STUDY

With an increasing proportion of the elderly in the population in the near future, it is important that medical students possess the correct attitude and knowledge towards older persons. Provision of care for older persons is an important aspect of undergraduate medical training. Examining medical students' attitudes about the elderly will provide valuable information when planning geriatric education in medical school.[6]

There is a paucity of studies on the knowledge and attitude of medical students towards elderly care in India. This study is an attempt to fill this void and to throw light on this area which needs urgent intervention to bring about a positive change in elderly care .

OBJECTIVES

1. To assess knowledge about geriatrics among medical students
2. To assess attitude of medical students towards elderly care

METHODOLOGY

This was a cross sectional study done among 83 final year medical students of Amala Institute of Medical Sciences, Thrissur, Kerala, South India. Approval was obtained from the Institutional Ethics Committee before commencement of the study (RefNo.21/IEC/19/AIMS-K). A pretested, validated, self-administered questionnaire was used to collect data. The questionnaire consisted of three sections:

A) Sociodemographic data

B) Knowledge scale

35 questions assessing the knowledge about geriatrics and aging were administered. A correct answer was given 1 point and wrong answer 0, with a total score of 35. Bloom's cut off points was used to calculate the knowledge score (60-80%). The knowledge level of the students was classified as below: 28-35= good knowledge, 21-27= moderate knowledge, 0-20 = poor knowledge

C) Attitude towards elderly- Likert's scale

35 statements were administered to the students, 14 were positively framed and 21 were negatively framed. To obtain a score, the values of the negatively framed statements were reversed and tallied in with the positively framed statements. The score obtained was divided by 35 to get the mean score. A score of 3.35 or above out of 5 was taken as positive attitude.

The purpose of study was clearly explained to the participants, and a written informed consent obtained . The collected data was compiled in Microsoft Excel data sheet and analyzed with appropriate statistical techniques using SPSS Statistical Package for the Social Sciences for Windows version 17.0. Differences were considered significant when $p<0.05$.

RESULTS

The students were in the age group 21-25 yrs with the mean age being 22.41±0.82 years. 3/4th of the students were females. None of the students were married. More than 50% of the population was from a Christian background, followed by Hindus (36%) Muslims (10%). More than half of the students were residing in an urban area. Only 8.4 percent of the students had a doctor parent. None of the students had good knowledge about geriatrics. About 2/3 rd of them had moderate knowledge. The mean knowledge score was 21.024 ± 2.828 out of 35. 54.2% of the students had a positive attitude towards elderly care. The mean attitude score was 3.362±0.35 out of a maximum score of 5. Students with better knowledge were found to have more positive attitudes. This difference was statistically significant. One third of the study subjects were living with an elderly at their home. Students living with elderly and those from a joint family were found to have a significantly higher attitude score.

Table 1 : Clinical And Demographic Characteristics Of Study Subjects

Variables		Frequency (%)
Gender	Male Female	22 (26.5) 61 (73.5)
Religion	Christian Hindu Muslim	44 (53) 31 (37.3) 8 (9.7)
Place of residence	Urban Rural	46 (55.4) 37 (44.6)
At least one doctor-parent	Yes No	7 (8.4) 76 (91.6)
Type of family	Nuclear Joint	67 (80.7) 16 (19.3)
Live with elderly	Yes No	27 (32.5) 56 (67.5)
Knowledge level about Geriatrics	Poor (0-20) Moderate (21-27) Good (28-35)	32 (38.6) 51 (61.4) 0 (0)
Attitude towards elderly care	Positive (≥3.35) Negative (< 3.35)	45 (54.2) 38(45.8)

Table 2: Mean Knowledge And Attitude Scores Based On Different Variables

Variables	Mean knowledge score Out of 35	Mean attitude score Out of 5
Total population	21.02 ±2.82	3.362±0.35
Gender		
Male	21.09 ±2.77	3.32±0.33
Female	21±2.86	3.37±0.36
Religion		
Hindu	21.26±2.61	3.33±0.39
Muslim	20.62±1.76	3.51±0.23
Christian	20.93±3.13	3.35±0.34
Place of residence		
urban	21.17±2.96	3.31±0.33
rural	20.83±2.67	3.41±0.37
Doctor parent		
yes	19.57±3.04	3.41±0.39
no	21.15±2.79	3.35 ±0.35
Type of family		
nuclear	20.88±2.97	3.33±0.34
joint	21.62±2.09	3.48±0.36
Live with an elderly		
Yes	21.37±2.42	3.38±0.35
No	20.85±3.01	3.35±0.35

Table 3: Relation Between Knowledge Level And Attitude Level

Knowledge level	Attitude level		Total
	Positive	Negative	
Poor	12	20	32
Moderate	33	18	51
Total	45	38	83

Chi-Square test p value=0.015.

Table 4: Knowledge Scale

KNOWLEDGE QUESTIONS	Correct response	
	N	%
1. The majority of old people (past 60 years) have Alzheimer's disease.	74	89.2
2. As people grow older, their intelligence declines significantly	70	84.3
3. It is very difficult for older adults to learn new things	23	27.7
4. Personality changes with age.	27	32.5
5. Memory loss is a normal part of aging.	74	89.2
6. As adults grow older, reaction time increases.	64	77.1
7. Clinical depression occurs more frequently in older than younger people.	44	53
8. Older adults have more trouble sleeping than younger adults do.	61	73.5
9. Older adults have the highest suicide rate of any age group.	82	98.8
10. All women develop osteoporosis as they age.	52	62.7
11. Anemia is normal in old age.	55	66.3
12. Physical strength declines in old age.	82	98.8
13. Most old people lose interest in and capacity for sexual relations.	14	16.9
14. Bladder capacity decreases with age, which leads to frequent urination.	64	77.1
15. Increased problems with constipation represent a normal change as people get older.	64	77.1
16. All five senses tend to decline with age.	65	78.3
17. A people live longer, they face fewer acute conditions and more chronic health conditions.	58	69.9
18. Retirement is often detrimental to health--i.e., people frequently seem to become ill or die soon after retirement.	58	69.9
19. Older adults are less anxious about death than are younger and middle-aged adults.	30	36.1
20. People 60 years of age and older currently make up about 20% of the Indian population.	21	25.3
21. The modern family no longer takes care of its elderly.	53	63.9
22. The life expectancy of men at age 60 is about the same as that of women.	72	86.7
23. Most older drivers are quite capable of safely operating a motor vehicle.	37	44.6
24. Older workers cannot work as effectively as younger workers.	8	9.6
25. Most old people are set in their ways and unable to change.	9	10.8
26. The majority of old people are bored.	35	42.2
27. Older people tend to become more spiritual as they grow older	73	88.0
28. Older people do not adapt as well as younger age groups when they relocate to a new environment.	5	6.0
29. Older people are much happier if they are allowed to isolate from society.	78	94.0
30. Geriatrics is a specialty branch in India.	47	56.6
31. Abuse of older adults is not a significant problem in India.	71	85.5
32. Grandparents today take less responsibility for rearing grandchildren than ever before.	70	84.3
33. Older persons take longer to recover from physical and psychological stress.	74	89.2
34. Most older adults consider their health to be good or excellent.	22	26.5
35. Research has shown that old age truly begins at 60	45	54.2

Table 5: Attitude Scale

Sl.No.	Statements	I do not agree at all N %	I somewhat agree N%	I fairly much agree N %	I very much agree N%	I completely agree
1	Older adults tend to be a burden for younger adults.	53 63.9	26 31.3	3 3.6	1 1.2	0 0

2	I have experience working with older adults.	11 13.3	9 10.8	16 19.3	10 12	37 44.6
3	There is not much that doctors can do to help patients with incontinence.	29 34.9	25 30.1	25 30.1	2 2.4	2 2.4
4	Older adults should be given priority in outpatient clinics and office services like banking	2 2.4	4 4.8	7 8.4	9 10.8	61 73.5
5	Older adults' bodies generally are unattractive.	23 27.7	26 31.3	23 27.7	11 13.3	0 0
6	Older adults have a lot of complications with their health conditions.	1 1.2	11 13.3	19 22.9	27 32.5	25 30.1
7	I do not mind providing healthcare to older patients.	14 16.9	1 1.2	2 2.4	16 19.3	50 60.2
8	A younger adult should receive greater priority for an organ transplant than an older adult having similar health.	8 9.6	18 21.7	16 19.3	17 20.5	24 28.9
9	It is probably not fruitful to encourage an older person to change poor health habits, since any damage to the body will already have occurred.	50 60.2	20 24.1	6 7.2	4 4.8	3 3.6
10	It is much more cost effective to provide advanced medical treatment to a younger adult than an older adult having similar co-morbidities.	28 33.7	21 25.3	15 18.1	14 16.9	5 6.0
11	I always take the time to listen to what older adults have to say.	2 2.4	11 13.3	16 19.3	28 33.7	26 31.3
12	It is important that healthcare providers directly help older patients understand and make joint decisions on their healthcare options.	1 1.2	4 4.8	14 16.9	19 22.9	45 54.2
13	Older adults are valuable contributors to our society.	0 0	13 15.7	13 15.7	21 25.3	36 43.4
14	The healthcare problems of older adults are often too complicated to completely treat.	12 14.5	15 18.1	19 22.9	17 20.5	20 24.1
15	I received training in geriatrics/gerontology during my MBBS course	56 67.5	13 15.7	10 12	3 3.6	1 1.2
16	There is much that I can learn from older adults.	3 3.6	4 4.8	9 10.8	31 37.3	36 43.4
17	Choosing a career in geriatrics would be a good decision.	5 6	31 37.3	22 26.5	14 16.9	11 13.3
18	I have participated in volunteer activities helping older adults	35 42.2	19 22.9	14 16.9	6 7.2	9 10.8
19	Older adults participate in most of the same recreational activities as younger adults.	27 32.5	40 48.2	11 13.3	3 3.6	2 2.4
20	Using medical technology to lengthen an older person's life will result in their having less quality of life.	27 32.5	18 21.7	16 19.3	10 12	12 14.5
21	Medical research to lengthen life for older adults is a poor use of resources.	40 48.2	24 28.9	13 15.7	5 6	1 1.2
22	It takes a lot of time to care for older patients.	17 20.5	13 15.7	23 27.7	19 22.9	11 13.3
23	Health care for older adults should not focus on expensive, aggressive treatments that might improve health conditions.	24 28.9	19 22.9	15 18.1	12 14.5	13 15.7
24	I would stop what I was doing and immediately help an older patient who had an accident involving daily bodily functions (e.g., urinary or bowel incontinence).	7 8.4	12 14.5	11 13.3	19 22.9	34 41
25	When adults become very old, their behavior is similar to that of infants.	4 4.8	11 13.3	15 18.1	25 30.1	28 33.7
26	Older adults have conditions that require too much medical time and money that could be better spent on younger adults.	27 32.5	33 39.8	9 10.8	9 10.8	5 6.0
27	It is not necessary to aggressively treat serious conditions in older adults since they have few years left and have already lived a good life.	35 42.2	20 24.1	13 15.7	11 13.3	4 4.8
28	Older adults tend to lose interest in sex.	3 3.6	25 30.1	17 20.5	29 34.9	9 10.8
29	I have spent time caring for an older friend or family member.	8 9.6	6 7.2	12 14.5	22 26.5	35 42.2
30	It is depressing to care for older adults.	49 59	21 25.3	9 10.8	4 4.8	0 0
31	It is reasonable that there should be mandatory retirement ages for most professions.	7 8.4	10 12	13 15.7	20 24.1	33 39.8
32	There is not much that doctors can do to help patients with dementia.	15 18.1	23 27.7	23 27.7	14 16.9	8 9.6
33	Older adults spend too much time reminiscing and telling stories about the past.	6 7.2	9 10.8	11 13.3	20 24.1	37 44.6
34	I am interested in working with and treating older adults.	0 0	16 26	26 31.3	20 24.1	21 25.3
35	Most older adults are relatively inactive and stay close to home.	10 12	20 24.1	22 26.5	23 27.7	8 9.6

DISCUSSION

This cross sectional study done among 83 final year medical students observed a moderate knowledge about geriatrics and positive attitude towards elderly care. Students living with elderly and those from a joint family were found to have a significantly higher attitude score. The nuclear family has its own disadvantages relating to the absence of experience elderly grandparents being with the children and sharing their wisdom. The attitude building among children towards elderly

has been linked to their previous experience with elderly especially at home. The presence of elderly at ones home will allow the younger generation to have a first-hand knowledge of the differences between them and an older person and will stand good against development of ageism which is thought to be a major stumbling block in the care of elderly. Medical students will also relate the difficulties that their elderly patient has to those of their own grandparents and thus would help in having a positive attitude in giving care to the old. Having more positive attitudes toward older adults and having cared for older persons prior to medical school were associated with greater interest in geriatric medicine. Similar findings were obtained by other studies by Fitzgerald et al(7). Community geriatrics and visits/ postings in elderly homes could help in improving experiences for the students.

None of the students had good knowledge about geriatrics, with about 61.4 % of them having moderate knowledge. The lack of good knowledge among final year medical students is significant as they have been through their clinical rotations and are in the last lap of their undergraduate education. With the ever increasing proportion of elderly population and patients, the paucity of correct knowledge about geriatrics among our students is a matter of concern and could point to the inadequacy of exposure to the field in their present curriculum. The need for addressing geriatrics with the same importance as given to paediatrics should be overemphasized as they represent a special group with specific skill requirements for proper healthcare delivery. **A study by Fitzgerald et al(7) in University of Michigan** found that incoming medical students had minimal knowledge about aging, moderately positive attitudes toward older adults, and low interest in geriatric medicine.

The fact that only 56% knew that geriatrics is a specialty branch in India speaks volumes about the ignorance about the subject among our future generation of doctors and warrants remedial measures for the creation of a effective and knowledgeable workforce for the care of the elderly. With the mad run for specialization and super-specialization prevalent in the medical field, the lack of geriatric education at the base level could produce drastic results in patient care as well as misdiagnosis and gross mismanagement.

Majority of the students felt that older people were set in their ways and could not adapt to changes and new environment indicates the presence of ageistic attitudes among them. A majority of the students also answered that it was very difficult for older adults to learn new things. This knowledge might lead to them considering elderly as worthless and having a negative attitude towards them. More than 90 percent answered that the older workers cannot work as effectively as the younger workers. This erroneous knowledge could result in workplace discrimination and loss of employment opportunities to the older adults. This could have financial and social implications.

About 3/4th of the students answered that older people lose interest in and capacity for sexual relations. This prejudice could lead to the neglect of sexual history during interview by the doctors and thus missing out on identifying an important factor in the psychological aspect of being aged. The taboo of speaking about sex by an elderly could prevent the patient from opening up on this aspect. If the doctor also is ignorant about the sexual aspirations of the older adults, this could result in missing key factor in the diagnosis of geriatric depression.

Almost 95% of the students answered that older people will not be happy if they are isolated from the society indicating there is a caring heart in them and relates to the knowledge among them regarding the feelings of elderly in isolation. With the ever increasing number of destitute homes in our country with heart-wrenching tales of elderly abuse, it is positive sign that our younger generation is thoughtful about elderly. The awareness among the students that elderly abuse was a significant problem in our country also will help in identifying more such instances and in rectifying the same to improve the quality of life of our elders. Majority of the students answered that older people take longer time to recover from physical and psychological stress indicating that they understand geriatric homeostasis is different from the others.

54.2% of the students had a positive attitude towards elderly care. It was observed that female students had higher attitude scores compared to males. Students residing in rural areas had statistically significant higher attitude scores compared to those in urban areas. Students living with an elderly and those from joint families had higher attitude scores. A positive attitude towards the elderly was seen in a study in Singapore(8).

Students with better knowledge were found to have positive attitudes and this difference was statistically significant. This underlines the importance of imparting correct knowledge to the students, as it can help to create better attitudes towards elderly care. 67.5% of the students said no to the statement "I was trained in geriatrics/ gerontology during my MBBS course". This points to a serious lacunae in the undergraduate curriculum which needs to include this branch as a separate branch with clinical rotations during the course as well as internship to develop the necessary skills, aptitude and attitude in medical students towards the subject. The need of the hour would be to educate every MBBS graduate on the uniqueness of the branch and the skills needed to practice the same than to produce specialists. This is because the general practitioners, and general physicians deal with the bulk of the elderly population in our country.

The scarcity of geriatric trained personnel and faculty further hampers the cause of imparting the right knowledge and skill sets to the students. A geriatric unit should be a part of every medical college and geriatric postings should be made compulsory for the undergraduates, rather than imparting the same during the medicine posting as is done now. It should also be part of the internship rotations as a compulsory posting rather than an elective. It is high time that we realize the importance of implementing this change to have an efficient healthcare workforce to manage the heavy workload coming upon the existing inadequate health infrastructure .

Equally important is the education of the present practitioners about the needs of this special group as adverse events, polypharmacy and iatrogenic harm is on the rise in the elderly due to the increase in number of comorbidities and non communicable diseases in them as the longevity of human life increases. Multiple prescriptions from multiple specialists for different ailments only compounds their woes. Similar studies could be conducted among the interns, postgraduates and practicing clinicians including specialists to assess the lacunae of geriatric knowledge and unrecognized attitude patterns among them. This would help in implementing continuing medical education or short fellowship courses among them to improve geriatric care.

LIMITATIONS OF THE STUDY

The present study was limited to a small sample including final year students alone. A larger sample including all the students in different semesters could yield better generalization of the findings. The students would have been guided by their ideal self especially while giving responses to the questions in attitude scale , which could have affected the final score.

CONCLUSION

Medical students lack training in geriatrics during their course. Compulsory geriatric education to be introduced in the curriculum to build an efficient and trained healthcare workforce. Geriatric care is multidisciplinary and based on teamwork. So the best form of care would be when all doctors at every level of care are well equipped in identifying the geriatric syndromes and the unique needs of this really special population Coordination between the geriatric health services and medical education is key to attain the goal of healthy aging and producing educated medical graduates to build an efficient healthcare force in our country.

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