# Primary Health Care Physicians' Knowledge and Attitude towards Elderly in Baghdad/Al-Karkh-2018

# Noor Hassan Abdul-Wahab, Waleed Arif Al-Ani

# **ABSTRACT:**

# **BACKGROUND:**

It is important for primary health care (PHC) physicians to possess adequate knowledge and attitude towards geriatrics to cope with the increasing number of elderly patients care during their daily practice.

#### **OBJECTIVE:**

To assess the knowledge and attitude of PHC physicians towards elderly and to study the relation between some factors with physicians' knowledge and attitude.

# **PATIENTS AND METHODS:**

A cross sectional study was conducted in 31 PHC centers in Baghdad/Al-Karkh for a period of 3 months from 1<sup>st</sup> of March to the end of May 2018.

A self-administered questionnaire was used for data collection which covered some physicians' characteristics.

### **RESULTS:**

Out of 225 PHC physicians working at the chosen PHC centers, 200 physicians enrolled in the study, with a response rate of 88.88%. The results showed that only 27.5% of physicians had good knowledge levels and 117 (58.5%) had positive attitude. Better levels of knowledge and attitude were achieved by family physicians, females in addition to those who work for less than 5 years in PHC centers.

# **CONCLUSION:**

Despite positive attitude of physicians towards elderly, better training and continuing medical education are important to improve the knowledge of physicians to ensure better services.

**KEYWORDS:** Knowledge, Attitude, Aging, PHC physicians

# **INTRODUCTION:**

Most countries have accepted the chronological age of 60 years and older as the definition of ageing. Population around the world are rapidly ageing which represent both challenges and opportunities<sup>(1, 2)</sup>. By 2050 world's population aged 60 and older is expected to total 2 billion up from 900 million in 2015<sup>(3)</sup>. Aging of population represents medical and sociological problem as it makes a greater needs on the health services of community<sup>(1)</sup>. In Iraq, according to the Ministry of Planning, the population estimated in 2013 for 65 years and older was 2.7 million while in 2016 it was 3.2 million, while according to Ministry of Health estimated the elderly population for 60 years and older in 2012 was 4% of population and become 5% in 2013, that expected to reach 8% elderly in 2050<sup>(4)</sup>.

Department of Family and Community Medicine, College of Medicine, Al-Mustansiriyah University Ageing increases the demand for primary health care and long-term care, require larger and better trained workforce and enhance the need for environments to be made more age-friendly<sup>(2)</sup>. Creating age-friendly environment requires cooperation and coordination across multiple sectors and with diverse stakeholders, including older people to promote health, remove barriers and provide support for people experiencing losses in capacity<sup>(5)</sup>.

Negative attitudes about ageing have significant consequences for the physical and mental health of elderly. Recently published research showed that elderly who hold negative views about ageing; feel that they are burden to society and think their lives are less valuable had higher risk of depression than people with positive attitude<sup>(6)</sup>. Nowadays more calls for action have highlighted the best need to encourage positive attitudes towards older people and caring for them<sup>(7)</sup>.

The current study was conducted aiming to assess the knowledge and attitude of PHC physicians toward elderly in a sample of PHC centers in Baghdad/Al-Karkh and study the relation between some factors with physicians' knowledge and attitude.

## **Subjects & Methods:**

A descriptive cross sectional study was conducted in 31 PHC centers in Baghdad/ Al-Karkh during a period of three months from 1<sup>st</sup> of March to the end of May 2018.

The sample was collected from 31 PHC centers out of a total of 122 PHC centers in Baghdad/Al-Karkh representing about 25% of the PHC centers chosen through simple random sampling according to the number of PHC center from each health sectors (25% PHC centers from each health sector). All physicians in the chosen PHC centers were invited to join the study.

Data collection was done through using a well-constructed self-administered questionnaire; the questionnaire was evaluated by the committee of experts in Al-Mustansiriyah College of Medicine \Department of Family and Community Medicine.

# The questionnaire consisted of:

Socio-demographic characteristics including name, age, gender, highest graduate qualification, specialty (general practitioner, family physician, other specialty), duration of work as physician in PHC centers, average number of patients seen/day (less than 10, 10-20, 21-30, more than 30), average number of elderly patients seen/day, trained on dealing with geriatrics or not (if yes: duration, place and last date of training).

**Knowledge** enclosed 20 different questions intended to define physicians' knowledge about elderly in many aspects. Response to these questions was in form of: **Yes**, **No** and **Don't know**, 3 points were assigned for correct answer, 2 for don't know and 1 for incorrect answer. Accordingly, total score for knowledge ranged from 20-60. Then the sum of scores were categorized into three levels of knowledge: good knowledge level was defined by a score of (≥50); acceptable/fair knowledge level

(40-49) and poor knowledge level (<40 knowledge score obtained) according to the quartile in which poor were assigned for less than <50% "first and second quartile", fair for 50-74% "corresponding to the third quartile" while 75% and above were categorized as good knowledge "fourth quartile".

Attitude A set of 10 questions inquired about the attitudes adopted by physicians toward elderly. Each statement was graded according to 3 points Likert scale (agree, disagree and No idea). For each statement, the response was scored from 1 to 3 with higher score for more favorable attitude. The total scores ranged from (10-30) marks. The attitude score was rated according to the quartiles, as positive when the participant gained  $(\geq 25)$ marks, acceptable/fair with a score of (20-24) and rated negative when the participant gained  $(<20)^{(8)}$ .

The questionnaire-form was piloted on a sample of ten physicians (who were not included in the study) to determine the time needed to fill the questionnaire and to figure out any difficult or unclear questions. Few adjustments were made in response to the result of the pilot study.

Data was collected after explaining to the participants the purpose of the study and taking their verbal consent. Confidentiality of the information was insured for the participant. Official letters of facilitation were directed to the PHC centers from Al-Karkh health directorate of Baghdad and Iraqi Board for Medical Specializations, data was kept only for purpose of research.

Analysis of data was carried out using the available statistical package of SPSS version 25. Data was presented in simple measures of frequency, percentage, mean, standard deviation and range (minimum-maximum values). The significance of difference of different proportion (qualitative data) were tested using Pearson Chisquare test ( $\chi^2$ -test) with application of Yate's correction or Fisher Exact test whenever applicable. Statistical significance was considered whenever the P value was equal or less than 0.05.

### **RESULTS:**

Out of 225 PHC physicians invited to participate in the study, 200 accepted to join giving a response rate of 88.88%. The age of PHC physicians ranges from 27-62 years with a mean of  $42.1\pm9.4$  years, and those 30-39 years age were forming the largest group (36.5%), almost three quarters of physicians were females (70.5%) and the majority of the studied physicians (73.0%) were bachelors graduated. (46.0%) were family physicians. About one third (38.5%) have work experience of less than 5 years.

Regarding details of training on dealing with elderly, only 15 physicians received training, the duration of training course ranged from 2-7 days, concerning the place of training 2 of them were trained in PHC, 6 in the health directorate, 2 in the hospitals and 5 in Ministry of Health and mainly the training took place in 2014 and 2017. Regarding workload characteristics, the highest proportion of physicians (62.5%) examine more than 30 patients per day and 39.5% of physicians give medical care to 5-9 elderly patients per day. (Table 1).

The result in table 2 illustrates physicians' responses to different aspects, out of 20 questions used to assess physicians' knowledge, 14 questions were answered correctly by more than 50% of physicians. 99.0%, 92.0% and 90.0% of participants had correct knowledge in degenerative joint diseases, physical strength sleep disorders respectively. knowledge was mainly poor in psychiatric problems and bowel habits with only 10.0% and 12.5% of physicians knew them accurately. Figure 1 summarizes the overall score of PHC physicians' knowledge as poor, acceptable/fair and good categories were (68.5%) of participants had acceptable knowledge followed by good (27.5%) and only (4.0%) were poor. Physicians' responses to assess their attitude toward elderly were shown in table 3. In general, the result showed that 65.5% agreed that being with old people was enjoyable.

86.0% of them thought of looking after elderly as a social duty and only 11.0% said it is worthless to care for elderly.

Out of total study physicians, 81.0% of them seemed to be interested in elderly's past experiences, 45.5% agreed on directing some of elderly's health expenses on them, more than three quarters (85.5%) said that health services must be for free.

High proportions (66.5% & 79.5%) of physicians were agreed that taking medical history from elderly is hard and paying more attention and patience toward elderly than young ones respectively.

The majority of physicians 93.0% believed that treatment of chronic disease is not a waste of time while only 46.5% of the participants agreed on preferring to deal with old people than young ones.

As it is shown in figure 2 the distribution of the PHC physicians overall attitude score with its categories as 58.5% had positive attitude, 37.5% had acceptable and only 4.0% was poor.

Table 4 illustrates the association between physicians' knowledge and attitude level and it didn't reach level of significance (P=0.945) as 61.9% of physicians with good knowledge had positive attitude compared with 3.6% of them who had negative attitude.

Table 1: The socio-demographic and workload characteristics of PHC physicians.

|   |                      | No.      | %         |  |
|---|----------------------|----------|-----------|--|
|   | <30                  | 13       | 6.5       |  |
| Age (years)                               | 30-39                | 73       | 36.5      |  |
|   | 40-49                | 62       | 31.0      |  |
|   | 50-59                | 46       | 23.0      |  |
|   | ≥60                  | 6        | 3.0       |  |
|   | Mean ±SD(Range)      | 42.1±9.4 | 4 (27-62) |  |
| Gender                                    | Male                 | 59       | 29.5      |  |
| Gender                                    | Female               | 141      | 70.5      |  |
| The highest graduate qualification        | Bachelors            | 146      | 73.0      |  |
|   | Diploma/Master       | 4        | 2.0       |  |
|   | Board                | 50       | 25.0      |  |
| Specialty                                 | General practitioner | 25       | 12.5      |  |
|   | Family physician     | 92       | 46.0      |  |
|   | Others               | 83       | 41.5      |  |
|   | <5                   | 77       | 38.5      |  |
|   | 5-9                  | 42       | 21.0      |  |
| The duration of work as physician         | 10-14                | 38       | 19.0      |  |
| in PHC centers (years)                    | 15-19                | 25       | 12.5      |  |
|   | ≥20years             | 18       | 9.0       |  |
|   | Mean ±SD(Range)      | 8.5±7.2  | 2 (1-35)  |  |
| Trained on dealing with geriatrics        | Yes                  | 15       | 7.5       |  |
| Trained on dearing with geriatries        | No                   | 185      | 92.5      |  |
|   | <10                  | 4        | 2.0       |  |
|   | 10-19                | 28       | 14.0      |  |
| The average number of patients seen daily | 20-29                | 43       | 21.5      |  |
| · ·                                       | ≥30                  | 125      | 62.5      |  |
|   | Mean ±SD(Range)      | 28.1±9.  | 1 (8-49)  |  |
|   | <5                   | 38       | 19.0      |  |
|   | 5-9                  | 79       | 39.5      |  |
| The average number of elderly             | 10-14                | 37       | 18.5      |  |
| patients seen daily                       | 15-19                | 17       | 8.5       |  |
|   | ≥20                  | 29       | 14.5      |  |
|   | Mean ±SD(Range)      | 9.9±8.4  | 4 (1-50)  |  |

Table 2: The physicians' knowledge response.

|   | The Response |      |     |      |            |      |  |
|---|--------------|------|-----|------|------------|------|--|
| Correct Statement   | Yes          |      | No  |      | Don't Know |      |  |
|   | No.          | %    | No. | %    | No.        | %    |  |
| A person physical strength tends to decline in old age  | 184          | 92.0 | 11  | 5.5  | 5          | 2.5  |  |
| Older people perspire less so they are more likely to suffer from hyperthermia                            | 70           | 35.0 | 90  | 45.0 | 40         | 20.0 |  |
| All five senses (hearing, vision, taste, smell, touch) tend to decline with age                           | 173          | 86.5 | 23  | 11.5 | 4          | 2.0  |  |
| Elderly take longer time to recover from physical and psychological stress                                | 179          | 89.5 | 13  | 6.5  | 8          | 4.0  |  |
| In old people total caloric needs are reduced   | 150          | 75.0 | 44  | 22.0 | 6          | 3.0  |  |
| In elderly there is increased risk of anemia  | 162          | 81.0 | 34  | 17.0 | 4          | 2.0  |  |
| The most frequent cause of gastro-intestinal hemorrhage in elderly is NSAIDs                              | 151          | 75.5 | 39  | 19.5 | 10         | 5.0  |  |
| Increased problems with constipation does not represent a normal change as people get older               | 25           | 12.5 | 175 | 87.5 | -          | -    |  |
| Liver does not declines in function with increasing age chiefly because of the effect of chronic diseases | 60           | 30.0 | 104 | 52.0 | 36         | 18.0 |  |
| Stool examination for occult blood should be performed every year   | 73           | 36.5 | 86  | 43.0 | 41         | 20.5 |  |
| Bladder capacity decreases with age which leads to frequent micturition                                   | 145          | 72.5 | 44  | 22.0 | 11         | 5.5  |  |
| Infectious diseases often present without fever or raised WBC count                                       | 104          | 52.0 | 76  | 38.0 | 20         | 10.0 |  |
| Pneumonia tend to present with tachypnea  | 87           | 43.5 | 86  | 43.0 | 27         | 13.5 |  |
| Malignant disease is the main cause of death in the elderly   | 131          | 65.5 | 51  | 25.5 | 18         | 9.0  |  |
| Most old people have degenerative changes in their joints   | 198          | 99.0 | 2   | 1.0  | -          | -    |  |
| Osteoporosis occurs more frequently in elderly(man & women)   | 179          | 89.5 | 21  | 10.5 | -          | -    |  |
| Atrophic vaginitis is not commonly causes post-<br>menopausal bleeding                                    | 103          | 51.5 | 69  | 34.5 | 28         | 14.0 |  |
| Depression occurs less frequently in older people   | 20           | 10.0 | 178 | 89.0 | 2          | 1.0  |  |
| As people get old their memory declines significantly   | 166          | 83.0 | 26  | 13.0 | 8          | 4.0  |  |
| Older people have more trouble sleeping than others   | 180          | 90.0 | 18  | 9.0  | 2          | 1.0  |  |

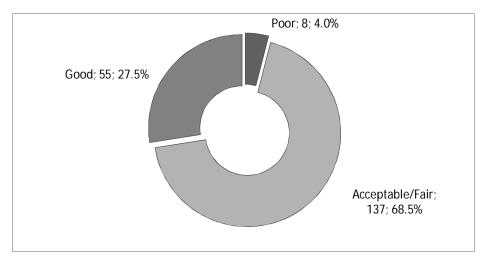


Figure 1: The PHC physicians' knowledge score.

Table 3: The physicians' responses regarding their attitude toward elderly

| Statement   | Agree |      | Disagree |      | No idea |      |
|---|-------|------|----------|------|---------|------|
| Statement   | No.   | %    | No.      | %    | No.     | %    |
| Being with old people is enjoyable  | 131   | 65.5 | 56       | 28.0 | 13      | 6.5  |
| Looking after old people is a social duty                                   | 172   | 86.0 | 22       | 11.0 | 6       | 3.0  |
| Caring for old people is not worthless                                      | 165   | 82.5 | 22       | 11.0 | 13      | 6.5  |
| Listening to past experiences of old people is interesting                  | 162   | 81.0 | 31       | 15.5 | 7       | 3.5  |
| Some of the health expenses of the old people must be directed on them      | 91    | 45.5 | 69       | 34.5 | 40      | 20.0 |
| Health services for old should be for free                                  | 171   | 85.5 | 24       | 12.0 | 5       | 2.5  |
| If had a choice he/she would prefer to deal with old people than young ones | 93    | 46.5 | 90       | 45.0 | 17      | 8.5  |
| Taking medical history from an old patient is hard                          | 133   | 66.5 | 65       | 32.5 | 2       | 1.0  |
| Pay more attention and patience to his/her old patients than young ones     | 159   | 79.5 | 35       | 17.5 | 6       | 3.0  |
| Treatment of chronic diseases in elderly is not a waste of time             | 186   | 93.0 | 8        | 4.0  | 6       | 3.0  |

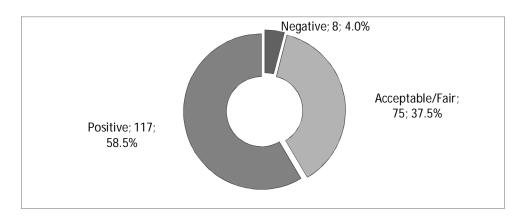


Figure 2: The PHC physicians' attitude score.

|                     | The attitude level |     |         |          |          |      |  |
|---------------------|--------------------|-----|---------|----------|----------|------|--|
| The knowledge level | Negative           |     | Accepta | ble/Fair | Positive |      |  |
|                     | No.                | %   | No.     | %        | No.      | %    |  |
| Poor                | -                  | -   | 3       | 37.5     | 5        | 62.5 |  |
| Acceptable/Fair     | 6                  | 4.4 | 53      | 38.7     | 78       | 56.9 |  |
| Good                | 2                  | 3.6 | 19      | 34.5     | 34       | 61.9 |  |
| P value             | 0.945              |     |         |          |          |      |  |

Table 4: The physicians' knowledge score in relation to their attitude score.

#### **DISCUSSION:**

The study revealed that the majority of PHC physicians were young age, family physicians, females, bachelors as highest graduate qualification and were not trained on dealing with elderly. A finding that was higher than other studies carried out in Iraq<sup>(9)</sup> in which females represent only 57.0%, in Singapore 44.5%<sup>(10)</sup> and in USA 47.0% were females<sup>(11)</sup> while in China females formed 37%<sup>(12)</sup>. This high proportion of female physicians might be attributed to the brain drain outside the country as a consequence of the bad conditions imposed on our country "male physicians left due to violence and threat".

Regarding age and highest qualification, sample goes parallel with study done in Iraq<sup>(9)</sup> in which the youngest physician was 28 years old and the oldest one was 60 years old with 75.5% of physicians were bachelors. About one-third of the study sample had less than 5 years of work in PHC centers, these findings were lower than other study in Iraq<sup>(9)</sup> which revealed almost half of the physicians worked for less than 5 years while study in Singapore<sup>(13)</sup> reported that 73.0% of physicians had less than 5 years of work.

### Knowledge

The poor-acceptable knowledge towards elderly obtained in this study was found to be comparable to that reported in USA, China, and Saudi Arabia in 2017<sup>(11,12,14)</sup>. This level of knowledge can be attributed to poor covering of the subject in the medical curriculum during both under and post graduate study and the lack of training on dealing with elderly later on in their practical life, this necessitates continuous medical education strategies which focus

on improving physician's knowledge about elderly and encouraging them to consider a career working with old people to meet their needs<sup>(15,16,17)</sup>.

Regarding responses to different aspects of knowledge, good level of knowledge in rheumatologic joint diseases goes in the same line with a study in Iraq<sup>(9)</sup> while level of knowledge was poor concerning mental illnesses which goes parallel with another study conducted in China which stated a poor physicians' awareness of the mental facts of ageing<sup>(12)</sup>. This finding provides further evidence that the medical education curriculum still focuses rigidly on disease with limited consideration to the social and psychological well-being of older people as advocated by the WHO<sup>(18,19)</sup>.

In general the good knowledge was observed among young age family physician female, bachelors, who worked less than 5 years, accustomed to care of few elderly patients (less than 10 per day) reflecting the fact that young family physicians had fresh information from their training courses during their practice for specialty.

# Attitude

The current study documented positive attitude towards elderly, this was consistent with previous studies in Singapore, USA and Australia (10,11,13,16) while other studies by Yang *et al* from China and Stewart *et al* had neutral attitude towards elderly (12,20). A possible reason for such positive attitude among physicians is that Iraq is an Islamic country and older people are socially highly valued and respected,

hence, the respect for older persons is a notable tradition and part of our cultural believes in spite of poor education regarding this aspect.

In conclusion, acceptable knowledge of PHC physicians about elderly was encountered in about two third of them. Most of the physicians had good knowledge regarding degenerative joint diseases while their knowledge was mainly poor in psychiatric problems. More than half of the studied physicians showed positive attitude towards elderly; while less than half prefer to deal with elderly patients during daily work and physician's characteristics that were associated with better level of knowledge and positive attitude were: female gender, being family physician and short years of work experience in PHC centers, in addition about two-third of physicians who had good knowledge had good attitude regarding elderly.

#### **REFERENCES:**

- Park K. Preventive Medicine in Obstetrics, Pediatrics and Geriatrics. In: Park's Textbook of Preventive and Social Medicine. Park K. (Eds.), 23<sup>rd</sup> edition. Chapter 9. M/s Banarsidas Bhanot. Jabalpur (India), 2015: 594-96.
- 2. WHO Report. Ageing and Life Course Sep. 2015. Available from: http://www.who.int/ageing/en/ [Accessed on 2018 June]
- 3. WHO Fact-sheets. Ageing and health Feb. 2018. Available from: http://www.who.int/en/news-room/fact-sheets/detail/ageing-and-health. [Accessed on 2018 June]
- 4. Ministry of planning of Iraq Report. MOP-Iraq/central statistical organization/demographic indicators, April 2016. Available from: http://www.cosit.gov.iq. [Accessed on 2018 June]
- 5. WHO Strategy. Global Strategy and Action Plan On Ageing And Health (2016-2020) May 2016. Available from: http://www.who.int/ ageing/GSAP-Summary-EN.pdf?ua=1. [Accessed on 2018 Aug.]
- 6. WHO Report. Discrimination and negative attitudes about ageing are bad for your health. Geneva 2016. Available from: http://www.who.int/mediacentre/news/relea ses/2016/ discrimination-ageing-youth/en/. [Accessed on 2018 Oct.]

- Oakley R, Pattinson J, Goldberg S, Daunt L, Samra R, Masud T, Gladman JR, Blundell AG, Gordon AL. Equipping tomorrow's doctors for the patients of today. Age and Aging J, 2014; 43(4): 442-47.
- 8. Shinde MB, Mohite VR. A Study to Assess Knowledge, Attitude and Practices of Five Moments of Hand Hygiene among Nursing Staff and Students at a Tertiary Care Hospital at Karad. International J. of Science and Research (IJSR), 2014; 3(2): 311-21.
- Khalil SS. Knowledge, attitude and practice toward geriatrics among doctors working at selected primary health care centers in Baghdad. A Dissertation of Iraqi Board in Com Medicine, 2005: 41-59.
- 10. Cheong SK, Wong TY & Koh GCH. Attitudes towards the elderly among Singapore medical students. Ann Acad Med Singapore, 2009; 38: 857-61.
- **11.** Fitzgerald J, Wray L, Halter J, Williams B & Supiano M. Relating medical students' knowledge, attitudes, and experience to an interest in geriatric medicine. Gerontologist, 2003; 43: 849-55.
- **12.** Yang Y, Xiao LD, Ullah S & Deng L. General practitioners' knowledge of ageing and attitudes towards older people in China. Australasian J on Ageing, 2015; 34: 82-87.
- 13. Lui NL & Wong CH. Junior doctors' attitudes towards older adults and its correlates in a tertiary-care public hospital. Ann. Acad Med Singapore, 2009; 38: 125-29.
- **14.** Alamri BH & Xiao LD. Health professionals' knowledge and attitudes toward older people in primary care in Saudi Arabia. Saudi Med J, 2017; 38(3): 229-36.
- **15.** Mellor P, Greenhill J & Chew D. Nurses' attitudes toward elderly people and knowledge of gerontic care in a multipurpose health service (MPHS). Australian J of Advanced Nursing, 2007; 24: 37-41.
- 16. Leung S, LoGiudice D, Schwarz J & Brand C. Hospital doctors' attitudes towards older people. Internal Med J, 2011; 41: 308-14.
- **17.** Liu YE, Norman IJ & While AE. Nurses' attitudes towards older people and working with older patients: an explanatory model. J Nurs Manag, 2015; 23: 965-73.

# PRIMARY HEALTH CARE PHYSICIANS ELDERLY

- 18. WHO Survey. Teaching Geriatrics in the Medical Education II Geneva 2007. Available from: http://www.who.int/ageing/publications/geriatricssurvey/en/. [Accessed on 2018 Oct.]
- **19.**Li J, Qi F, Guo S, Peng P & Zhang M. Absence of humanities in China's medical education system. Lancet, 2012; 380: 648.
- 20. Stewart TJ, Eleazer GP, Boland R & Wieland GD. The middle of the road: Results from the Aging Semantic Differential with four cohorts of medical students. J Am Geriatr Soc, 2007; 55: 1275-80.