

Nutrition and Chronic Diseases among Makkah Visitors

Omar B Ahmed¹, Tariq A Al Malki², Arwa A Al Malki³ and Anas S Dabool⁴

¹ Umm Al Qura University

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Abstract

Chronic conditions are thought to affect a high number of the general population of pilgrims and Umrah visitors. With a little planning and preparation, people with chronic illnesses should have safe and enjoyable Umrah rituals. The study aimed to characterize the association between chronic diseases and dietary regimens among Umrah visitors. Data collection questionnaire designed for recording of the most expected diseases among Umrah visitors. The results showed that out of 401 Umrah visitors suffering from chronic diseases, 80.8

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Index terms— makkah, umrah visitors, travelers, chronic diseases, nutrition. boundaries yearly [5]. In Saudi Arabia, the number of pilgrims in 2018 attracted more than 3 million pilgrims from 184 countries ??6]. Increasing globalization in travel leads to increase the risk of travel-related illnesses and progress pre-existing health problems such as chronic disease. A traveler's health depends on providing pre-travel counseling on appropriate interventions to promote health and prevent adverse health outcomes during travel [7,8]. Unfortunately, a small number of travelers will seek pre-travel health advice. Lack of awareness among travelers is not being insured under health plans. Furthermore, those travelers who are consulting practitioners who are not eligible trained to recommend patients on travel [9,10,11,12]. Some studies suggest that pre-travel care should be achieved by a certificated practitioners in the field of travel medicine (i.e., provided by local or international society of travel medicine) [13]. Progressive of chronic disease may kill three in five people worldwide and then becomes a leading cause of mortality in the world by representing 60% of all deaths. Moreover, it causes great socioeconomic problems within all countries, particularly developing nations [2,14]. In developed countries such as United State of America (USA), 88% of Americans over 65 years have at least one chronic disease [1]. On the other hand, poor diet is a contributor cause to chronic diseases and possibly the death in USA [15]. Nutritional treatment in early stages of chronic kidney disease could prolong life [16]. Malnutrition and protein-energy wasting has been demonstrated to be strongly related to mortality in chronic kidney disease patients [17] [18]. During traveling, chronic disease care has become more complicated because easily access to highly processed foods and low consumption of fresh food [19]. The increasing physical activity and reducing intakes of highly rich foods with drinks in sugars can prevent unhealthy weight gain. More recent studies have not shown much improvement in the low prevalence of healthy lifestyle practices [20,21]. Moreover, studies have shown that clinicians' knowledge and counseling about healthy diets are lacking [22]. That is may be due to difficulties for diabetic patients to find the recommended nutrient intakes described within dietary guidelines. The efforts of individuals and their healthcare providers, strategies to increase the nutritional quality of prepared foods could gain improved widespread benefits [23] hronic disease is a disease that persists for three months or more [1]. Generally, there are slow in progression and long in duration. There are many types of chronic diseases such as; diabetes, cardiovascular such as heart attacks and stroke, cancers diseases in addition to the chronic respiratory condition such as chronic obstructed pulmonary disease (COPD) and asthma diseases [2]. Generally, vaccines or medication cannot prevent chronic diseases. Furthermore, chronic diseases cannot communicate from person to person [3]. Travel medicine is a specialty that needs highly specialized persons in travel-related diseases, In addition to up-to-date knowledge of the worldwide epidemiology of diseases or conditions [4]. Worldwide, rates of international travel are growing continuously, about 1

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45 1 Introduction billion travelers worldwide crossing international

46 Control and Prevention) provide health Information for International Travel commonly called the Yellow Book
47 published every two years as a reference for health professionals providing care to international travelers [25].
48 The study aimed to characterize the association between chronic diseases and dietary regimens among Umrah
49 visitors during the first Umrah season in 1439.

50 2 II.

51 3 Materials and Methods

52 The study conducted at Holy City of Makkah Al Mukarramah, during Umrah season that at the first months of
53 1439 (1 st September till 31 th of December 2017). Inclusion criteria were simple random 401 travelers (Umrah
54 visitors) using data collection questionnaire designed for recording of the most expected chronic diseases among
55 Umrah visitors, while the exclusion criteria were non-Umrah visitors. Socio-demographic characteristics were
56 age, level of education, job, marital status, education, job, socio economic status, Medical history and nutritional
57 survey (Weather participant take white or brown rice and bread, low or whole dairy products, low-fat meat or
58 chicken, low-sugar or regular beverage, fresh or canned salty food, well-cooked or raw food). Data entry and
59 statistical analysis were done using SPSS 21.0 program.

60 4 III.

61 5 Results and Discussion

62 Another study reported that residents with a history of migration with a higher prevalence of chronic diseases
63 such as cardiac diseases, hypertension, and diabetes (26). Statistically, the present study showed a significant
64 association between age and the type of chronic disease (p-value <0.05), also there was no significant association
65 between the chronic diseases and the gender (p-value > 0.05). Diabetes leads to the increased risk of many diseases
66 such as cardiovascular diseases, kidney disease, stroke, and infections. Cardiovascular diseases are major etiologic
67 morbidity factors in the world due to unbalanced diets and physical inactivity. More than half of international
68 travelers to developing countries become ill during their trip, hence a small number looks for medical care for a
69 travel-associated illness during their travel (27). So any chronic case, such as diabetes, blood pressure or kidney
70 disease may add challenges to the traveler. Planning is the key to a successful Umrah visit trip.

71 intakes of calcium and vitamin D in patients with high osteoporosis rates may help to reduce fracture risk. Also,
72 the sun exposure and physical activity may strengthen bones and muscles. The highest frequency of Umrah visits
73 (44.9%) among Umrah visitors was for the second time per year, and 24.4% had an average annual visit frequency
74 of 3 times (Figure ??). In the present study 80.8% of the patients on medication (Figure ??). In the present
75 study (39.9%) the Umrah visitors traveled to Makkah without consulting a specialist doctor. Also 31.7% of them
76 used to make regular medical check only once time before traveling while 28.4% of them used to make a medical
77 check for two times (Figure ??). Most participants (72.1%) used to do periodic laboratory and measurement
78 tests (Figure10). Each Umrah visitor needs to schedule an appointment with a travel specialist doctor as soon
79 as possible and may ask for additional health needs, travel requirements. Also, he may be asked to do medical
80 investigation and to bring extra medication packed in visitors carry-on luggage. Medications purchased abroad
81 may not meet Saudi standards. Also, the study showed, most of the visitors were on medication. Hence, it is
82 very important to consider bringing copies of visitors prescriptions, wearing a medical alert bracelet and a first
83 aid kit packed with over the counter medications approved by the physician. Also, 59.6% of the patients had
84 a diet food program (Figure ??1). Also, 78.3% used only white bread/rice for eating (Figure ??2) and while
85 71.1% and 28.9% had chicken/ meat with regular and low fat in their meals, respectively (Figure ??3), also 62.3%
86 and 37.7% of them were had regular and low fat a dairy product within their meals, respectively (Figure ??4)
87 and 71.1% and 28.9% of them were had regular and low sugar beverage product, respectively (Figure ??5). The
88 rapidly increasing burden of chronic diseases is a determinant of global public health. For healthy diets, healthy
89 foods should be promoted at Umrah visitors food services. For diabetic Travel to Makkah can be relaxing and
90 rewarding, but people with chronic may face unique challenges when they travel overseas, but sometimes the
91 physical demands of travel can be stressful. The present study outlined most common chronic diseases and their
92 dietary regimens during the first Umrah season in 1439 (2017). Four hundred and one were the Umrah visitors
93 who declared that they had chronic diseases, most of them (65.38%) were male (Figure ??) while (65.38%)
94 married (Figure ??). About 60.6% of the patients were from the age group 21-40 years old; none were more
95 than 80 years (Figure ??). The present study showed that most of the Umrah visitors were with educational
96 secondary school level (62.1%) while 37.4% of them were of university educational level of or higher (Figure ??).
97 The commonest nationality of Umrah visitors with chronic diseases was Saudi (21.7%), followed by Bangladesh
98 (19.7%) and Egyptian (14.4%) (Figure ??). The results of the present study were closed to previous studies (28)
99 which showed Saudi citizens represented 42.5% of the total patients where the incidence in Saudi patients was
100 more than that in other nationalities. The present study showed that the commonest chronic disease encountered

102 among Umrah visitors was Diabetes Mellitus (41.4%), followed by blood hypertension (31.9%), chronic respiratory
103 disease (18.5%) and chronic heart disease (6.5%) inflammatory bowel syndrome (1%) (Figure ??).

104 Bone disease is a problem of older people. Adequate patients, overweight and obesity and physical inactivity
105 may raise the rates of type 2 diabetes. During traveling, increased physical activity and maintaining a healthy
106 weight can prevent and help the treatment of diabetes. Risk of chronic diseases such as heart disease and stroke
107 is reduced by eating low saturated fats, enough amounts of fruits and vegetables and low-salt diets. Also it is very
108 important to practice physical activity and controlling weight. Reduction of salt intake helps to reduce blood
109 pressure and consequently will limit the cardiovascular diseases. Dietary modifications are common treatment
110 plans for patients with different chronic diseases. It was supposed that the patient who read labels on the food
111 packages used less energy, low saturated fat, carbohydrates, and sugar, and more fibers than those who did not
112 (29). Such findings reflect the value of dietary counseling in chronic disease management (29). The present study
113 showed no significant association between the chronic diseases and the type of food taken by Umrah visitors
114 (p-value > 0.05). The study concluded that chronic diseases among Umrah visitors are variable. Also, it could
115 be recommended that those with chronic disease should obtain a great deal of information and advice from a
travel specialist doctor and may need to carry extra

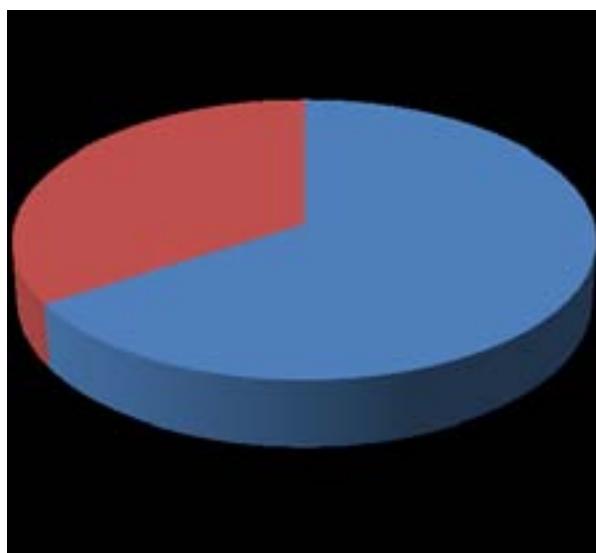
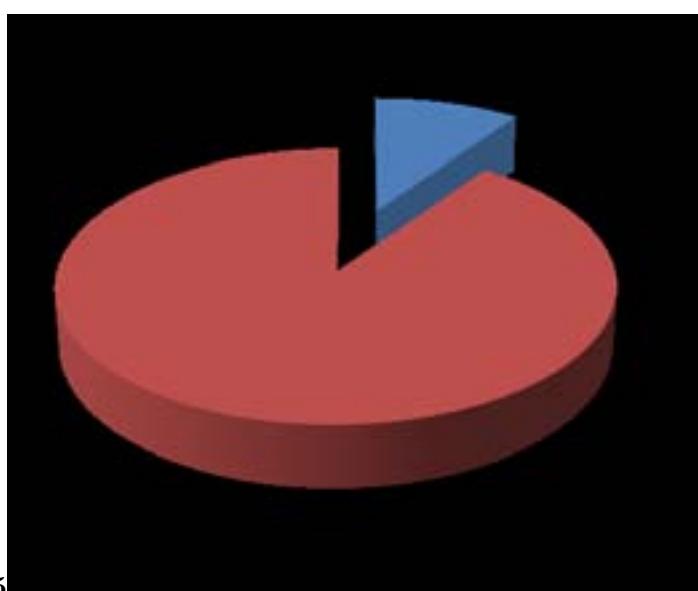


Figure 1:

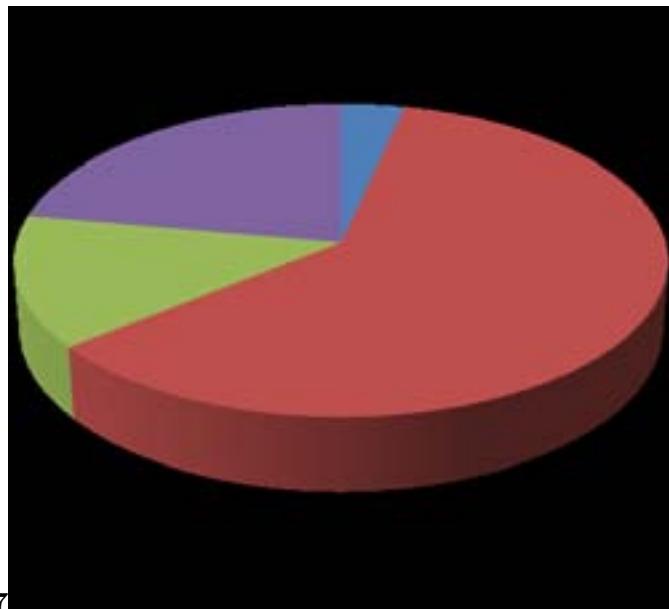


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Figure 2: Figure 1 : 2 :Figure 5 :

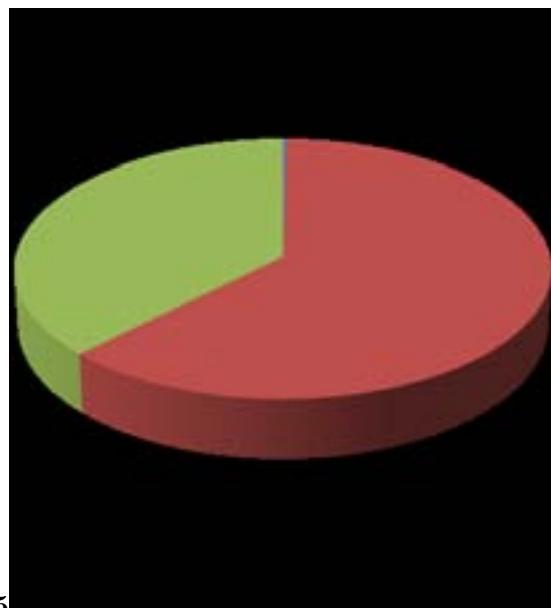
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Figure 3: Figure 6 :Figure 7 :



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Figure 4: Figure 9 :Figure 15 :

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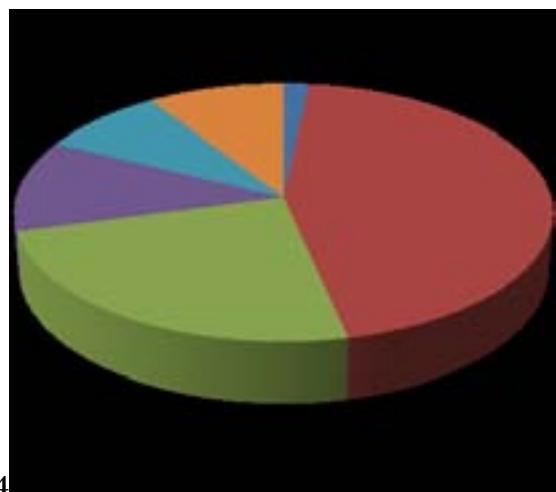


Figure 5: Figure 10 :Figure 11 :Figure 12 :Figure 13 :Figure 14 :

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