

Investigation and analysis of travel hygiene KAP in middle aged and elderly population

Han Qin, Liu Xing, Su Cui-li, Cheng Ke-jie, Cheng Wei-zhong

Department of public health; Chengdu Medical College, Si Chuan, Cheng Du, 610500, China

Key words: middle-aged and elderly travelers; KAP. Health care

Abstract: Objective: to explore and analyze the knowledge of travel health care of middle-aged and elderly travelers and to give some preventive measures. Methods: questionnaires were carried out and Spss17.0 was used to analyze the collected data. Results: the results show that the main influence factors of middle-aged and old people understanding of travel health KAP is whether the culture degree and obtain travel health knowledge, the impact is positive correlation, of which more than 90.5% of travelers won't make a corresponding medical preparation before travel. The understanding of travel infectious diseases is mainly manifested in the common hepatitis a, traveler's diarrhea and influenza, and low awareness rate of other infectious diseases. Conclusion: the elderly travelers travel for lack of knowledge about health care, before travelling to health care to inadequate preparation, lack of disease and accident measures to cope with the trip, the need for government departments to strengthen elderly travelers in travel health care information propaganda, improve the learning initiative to travel health knowledge, ensure the quality of life, travel to reduce the occurrence of infectious diseases and travel accident harm.

1. Introduction

Tourism is the largest industry in the world today. However, the number of elderly people in China is large, and the latest census data show that the proportion of the elderly population in China continues to increase. It is estimated that by 2025, the total number of elderly people will exceed 300 million^[1]. With the increasing number of elderly people traveling, the incidence of health hazards to travelers from this beneficial activity is also increasing. Due to changes in the physiological function of the elderly population^[2], the immune function is reduced so that the ability to resist invasion by foreign pathogens is weakened, and various infections are susceptible during travel. How to protect the health of the elderly group is a very important issue. Therefore, through the sampling of 380 middle-aged and elderly people in Chengdu, this paper makes a questionnaire survey on the knowledge (K), attitudes (A) and practices (P) on travel of middle-aged and elderly people^[3], and analyzes the level of understanding of the health care during travels of the elderly in China.

2. Objects and Methods

2.1. Objects

From March to July 2016, an accidental sample survey was conducted among people aged 55 and over in the Chengdu Shuangliu International Airport terminal and five community health service centers in Chengdu. 372 questionnaires were distributed, 365 questionnaires were returned, and 360 valid questionnaires were obtained. The effective recovery rate was 94.7%. Some questionnaires were not answered. Among the valid questionnaires, 206 were males and 154 were females, aged between 53 and 78 years old, with an average age of 62.78 years. The educational level ranged from primary and secondary schools to universities, with a high level of secondary school education. Among them, the number of people with junior high school education and below is 73.3%, the number of high school education is 22.3%, and the number of people above university level is 4.4%.

2.2. Methods

The survey is a self-made questionnaire, which is filled in anonymously by the object or the investigator after a interview. The questionnaire mainly includes: ① basic information of travel for middle-aged and elderly travelers; ② middle-aged and elderly people's travel health care KAP; ③ middle-aged and elderly travelers' understanding of travel infection. And the 12 to 19 questions in the questionnaire as well as the awareness of infectious diseases are comprehensive scored, choosing the first option to score 1, choosing the second option to score 3, choosing the third item and other options to score 2, knowing infectious disease to score 1, do not know it to score 0, and then adding the scores of each question is a comprehensive score.

2.3. Statistical Analysis

The questionnaire was uniformly coded and analyzed by SPSS17.0 software. The quantitative data is described in $\bar{x} \pm s$. Qualitative data is described by the number of cases (%). The comparison between groups was completed by chi-square test, and the test level is set to 0.05.

3. Results

3.1. Travel basic information

The results of the survey on the elderly population are shown in Table 1. There are many leisure trips for travel purposes, and fewer business trips and visiting relatives. The time spent on travel is mainly short-term, and there are fewer long-term travelers on business. The survey shows that the main places for travel are in and around the province, and the proportion of domestic cross-provincial and foreign is small. Most elderly people like to go out with family and friends. The focus of the destination before the trip is mainly on the traffic route, especially the self-driving crowd. The accompanying items are mainly mobile phones and money, and less than 10% of those who are willing to bring common drugs.

3.2. Travel health care KAP situation

In this survey, the knowledge, attitudes and preventive measures (KAP) related to travel safety and travel diseases in the travel of the elderly were involved. The results are shown in Table2. According to the survey, nearly 70% of elderly travelers have a good evaluation of their own bodies, and a small number of people have chronic diseases such as hypertension and diabetes, 90% of travelers do not know the diet and water sanitation of their travel destinations. For long-term travel, there are fewer people who have active vaccination. There are also a handful of active physical examinations after the long-term travel has returned. However, the travel health KAP status is better initiative.

3.3. Understanding of infectious diseases

The questionnaire involved 14 kinds of travel infectious diseases, and the understanding and vaccination status of these diseases were investigated. The results are shown in Table 3. There is a high awareness of common infectious diseases and frequently-occurring diseases, such as Traveler's diarrhea, influenza, tuberculosis, tetanus, sexually transmitted diseases. Hepatitis A and hepatitis B occupy higher cognitive rates. There is a low awareness of diseases with low local incidence such as Fiebre amarilla, Aden fever, Ebola, cholera and gafeira. The vaccination rate for certain vaccineable diseases is higher.

3.4. Analysis of factors affecting travel health KAP(Spearman related analyze→correlate→bivariate→Spearman)

Through the analysis of the scores of 12-19 questions in the survey results, it is found that the scores are positively correlated with the knowledge of travel health KAP. Through the survey of elderly travelers found that factors affecting travel health care KAP knowledge include gender, age,

education level, frequency of travel, and access to travel health knowledge before travel. Spearman chi-square analysis was used without considering the interaction between factors. The results shows that the degree of education and whether to obtain travel health knowledge before travel were positively correlated, with statistical difference (<0.05). While, gender and age have no statistically significant effect on it (>0.05). That is, the travelers with high education level and travel experience or travel health knowledge has a high score in travel health knowledge (see Figure 1).

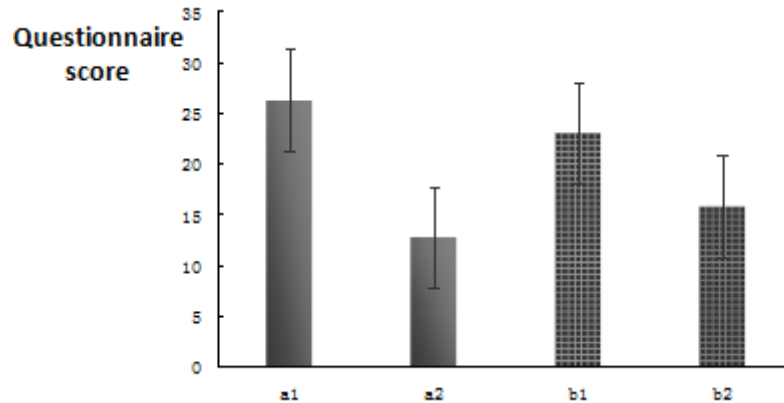


Figure 1 Questionnaire scores for different influencing factors

a1: High school and above, a2: Junior high school and below,

b1: Received travel health knowledge before departure, b2: No travel health knowledge before departure

4. Discussion and Analysis

In recent years, with the intensification of China's ageing situation, there will be more and more elderly people traveling alone or together. The concept of “preserving health in tourism” has gradually become fashionable. Highly concentrated old-age resources have brought a strong tourism foundation for elderly tourism^[4]. We found that the educational level of the elderly population was generally low, and the proportion of junior high school and below was 73.3 percent. Through analysis, it is found that the level of education has a direct impact on the level of awareness of travel health care. In terms of pre-trip preparation, only a small percentage of the population (8.7%) will be prepared for travel health care. This group of people is mainly a group of people with chronic diseases and a slightly higher level of education. 31.5% of the surveyed people have chronic diseases such as high blood pressure or diabetes. At least blood pressure can be stabilized at 140/90mmHg, heart rate 60-70 beats / min, and according to the electrocardiogram to determine whether there is myocardial ischemia symptoms then to determine whether it is appropriate to travel^[5]. All elderly people should pay attention to prevent accidents such as colds, insomnia and other accidental falls. It can be accompanied by a medical staff to prevent medical accidents, and provide appropriate preventive measures when it comes to reasonable diet and environmental changes.

The survey shows that almost all elderly travelers experienced some symptoms such as carsickness, insomnia, diarrhea, and fever during their journey. The results show that more than 90% of the elderly travelers do not know the health care resources of the travel destination before the trip, nor do they understand the local drinking water situation. There is no health awareness of physical examination and vaccination before and after long-term travel. They also do not take the initiative awareness to acquire travel health knowledge. The main contents of elderly travel health care include: routine physical examination, recording of relevant medical history, necessary tests, and health care guidance^[6]. Preventive health care propaganda should be carried out before traveling, and the common symptoms and signs of the elderly and preventive measures should be publicized and directed to prevent and avoid possible diseases and unintentional injuries. According to the past medical history of the elderly travelers, the medicines for the treatment of the

corresponding diseases should be reminded, and the first aid kit should be provided. At the same time, they should understand the psychological state of the elderly and know how to solve the sudden psychological problems^[6].

For the understanding of travel-related infectious diseases, Table 3 shows that about 90% of the population only know about common diseases such as diarrhea, hepatitis A, flu, tuberculosis, etc. For domestic infectious diseases with low incidence, such as Fiebre amarilla and aden fever, the awareness rate is less than 10%. According to the current WHO regulations, the Fiebre amarilla vaccine is currently the only vaccine required to when entering member states. About 100,000 cases of Fiebre amarilla occur worldwide each year, with a mortality rate of up to 50%^[7]. Therefore, travelers can be vaccinated according to the risk of Fiebre amarilla outbreak^[8]. The higher incidence of diarrheal diseases is related to other pathogens such as Salmonella, Bacterium coli, Shigella, Bacillus comma, Staphylococcus aureus, Cyclospora, Hepatitis E virus and Trichinella spiralis^[9]. For the prevention of infectious diseases during travel, the first priority is to advise travelers to maintain good personal hygiene and eat cooked food. Secondly, it is recommended that travellers carry drugs for self-treatment including: oresol, berberine, bismuth salicylate and prescription antibiotics. Finally, the government departments should strengthen the promotion and learning of travel health care knowledge for the elderly people on travel health knowledge and to reduce the incidence of travel infectious diseases and travel accidents, facilitating the old people have a happy and peaceful journey.

Acknowledgements

This work is supported by “the Project of the Tourism Research Center of Education Department of Sichuan(No. LYC14-44)”.

Reference:

- [1] China Statistical Yearbook-2015.<http://www.stats.gov.cn>.
- [2] Changling Dong. Introduction to Travel Medicine[M], Forth Military Medical University Press2002,08.
- [3] Annelies WS, Nor S. K, Jae HS, Travel Health Knowledge, Attitudes and Practices among Australasian Travelers, Journal of Travel Medicine[J],2003,11:9-15.
- [4] Lijun Liu. Research on the Development of China's Elderly Tourism Market, Bridge of Century, 2011,19:144-148.
- [5] Wei Li, Gejing Li. Travel Health Care for Elderly Hypertensive Patients[J], Science of Travel Medicine,2007,13(1):38-40.
- [6] Xiaoyan Jiang, Huimei Huang, Changwen Pan. Discussion on Travel Health Care for the Elderly[J],cience of Travel Medicine, 2008,14:24-27.
- [7] Monath TP. Dengue and Yellow Fever-Challenges for the Development and Use of Vaccines[J]. N Engl J Med, 2007,357(22):2222-2225.
- [8] Xuan Zhou, Ping Li, Yun Fang, et al. Cruise Travel Related Health Guidance and Travel Advice[J], Chinese Journal of Frontier Health and Quarantine,2013,36(3):198-202.
- [9] Wikswo ME, Cortes J, Hall AJ, et al. Disease transmission and passenger behaviors during a high morbidity Norovirus outbreak on a cruise ship, January 2009[J]. Clin Infect Dis,2011, 52(9):1116-1122

Table 1 Statistics on basic information and preliminary preparations of travel for middle-aged and elderly travelers(%)

tags	questions	options
1.	Annual outing rate:	Once or twice(57.2%) 3 times(14.0%) 4 times(28.3%) Not going out(0.8%)
2.	The purpose of going out:	Leisure and play(71.3%) Visit friends(8.6%) Business travel(20.1%)
3.	Outing time is mostly:	1-3 days(56.0%) 4-14 days(32.6%) 15-28 days(7.8/5) >28 days(3.6%)
4.	Travel locations include:	Major cities in China(10.5%) Major scenic spots in Sichuan(40.7%) Foreign countries(5.2%) Surroundings of residence(43.6%)
5.	The environment of the travel location belongs to:	Mountain and plateau(2.6%) Seaside and lakeside(97.4%) Desert(0) Extremely cold or extremely hot(0)
6.*	What kind of transportation is used:	Car or self-driving(36.4%) Train(38.0%) Aircraft(25%) Ship(10.6%)
7.	Travel in what way:	Traveling with family or friends(72.9%) Package tour (15.8%) tour pal(8.2%) other(3.2%)
8.*	Concerns about travel destinations:	Accommodation (20.1%) Traffic routes(45.6%) Customs and culture(18.3%) other(21%)
9.*	The accompanying items are:	Money and cell phone(99%) Clothing(80.2%) Toiletries(18.6%) food(10.2%) Common drugs(8.7%)

* questions indicate multiple choices

Table 2 Statistics on KAP survey of travel health care among the elderly(%)

tags	questions	options
10..	Your physical condition:	Hypertension(25.2%) Diabetes(6.3%) Recent history of surgery(0.5%) Well(68%)
11.*	Symptoms that are prone to travel	Motion sickness(66.7%) Insomnia and fatigue(10.4%) Diarrhea and vomiting(8.4%) Other(23.8%)
12.	Will you have a physical examination before long-term travel?	Never(96.2%) Yes(0) Depending on local conditions(3.8%)
13.	Will you know the local medical and health resources before departure?	Never(94.6%) Yes(0) Depending on local conditions(5.4%)
14.	Will you know the local medical and health resources before departure?	Never(90.5%) Yes(8.2%) Depending on local conditions(1.3%)
15.	Will vaccination be given before long-term travel?	Never(94.4%) Yes(0) If it necessary(5.6%)
16.	Physical examination or health care will be carried out after the long-term trip:	Never(96%) If the body is abnormal(4%) When there is no abnormality in the body(0)
17.	How to deal with diseases during travel or going out:	Try not to deal with it and return home for treatment (0) Heal with the medicine you brought (12.4%) Buy medicine at a local drugstore(62%) Go to the local hospital for treatment(20.2) other(5.4%)
18.*	How to get travel health knowledge:	Not getting(16.8%) Books(23.1%) Internet(38.5%) others inform(20.6%)
19.	Whether the acquisition of knowledge on the above question is active or passive:	Passive(18.9%) Initiative(55.7%) Passive first then Active(25.4%)
20.	Will you purchase travel medical insurance when travel?	Never(58.6%) Every time(2.4%) Sometimes(39.0%)

Table 3 older travelers' understanding of travel infectious diseases

Disease profile	Awareness rate(%)	Vaccination rate(%)
Malaria	21.8	-
Traveler's diarrhea	99.0	-
Aids	36.2	-
Hepatitis A and hepatitis B	62.3	60.3
Fiebre amarilla	6.0	0.2
Aden fever	2.2	0
Gonorrhea/syphilis	82.3	-
Cholera	22.6	-
Influenza	90.6	67.2
Ebola	3.3	-
Epidemic encephalitis B	37.2	45
Tuberculosis	84.7	-
gafeira	6.4	0
"-" means no relevant vaccine		