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knowledge, attitudes and practices study in relation to entomophobia and its application in vector-borne-diseases

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ABSTRACT

Objective: The study was carried out to determine the knowledge, believe and practice of students about insects for forthcoming research due to tropical medicine. Its application to tropical medicine is acceptable. **Methods:** The study was conducted among 300 students by pre-trained interviewers using a pre-test questionnaire in secondary, high school, and university in the Tehran city from June 2008 to May 2009. All statistics analysis was carried out the spss ver 11.5 EPI6, stata 80, chi-square and fisher exact test. **Results:** Significantly, 82.3% of the interviewers had problem when expose to insects ($P<0.05$). Domestic animals and unhygienic human habitant most importantly incriminate to present of insects. Out of 73.8% of the respondents believed the association between entomophobia and human habitat. Entomophobia was significantly associated with density and size of insects ($P<0.05$). Out of 37% of the respondents agree with killing of insects pest ($P<0.05$). Significantly steers was the common sign of entomophobia among the respondents ($P<0.05$). Out of %49.7 of audiences belived to association between entomophobia and age. **Conclusion:** In conclusion important the education and communication messages against entomophobia take in to consideration the local practice.

1. Introduction

Entomophobia is recognized an irrational or unreasonable fear of insects, spiders, camel spiders, scorpions and other arthropods. Hhuman maybe afraid of small mammals, snakes, tortoise alligators, and others dangerous animals, but entomophobia is recognized an important public health problem because of insect small size, different paint, spine and sore the boy, bad odors[1]. Entomophobia is most likely found with two types, the first. Is true entomophobia cause when a person is enhanced by a specific idea, the second is false entomophobia cause when a person is enhanced by a specific idea, the second is false entomophobia came when a Persian was exposed to insects suddenly [2].

Arthropod phylum was the successful creature because small size, good adaptation, fast movement, the use of

different habitats, so more expose to human habitat. Entomophobia is more important because we should be improving access of health care for reduction gap between health outcomes in urban arenas.

Tehran is the capital town of Iran, and a lot of people that they non-inhabitant traveling to this town during the spring and summer and exposed to arthropod. There for was needed on the knowledge, and belief of students about the entomophobia and practice for control. Results of this study will be valuable to developed and improving community education in forthcoming control program. However, knowledge, believes, and practice about entomophobia has been studied for design of control programs in the tropical area.

2. Material and method

Open-ended questionnaires were designed and a polite version was conducted between at least three groups among the randomly selected students. The questionnaire included two parts; the first part 15 questions were designed to obtain

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information about their knowledge, and the second part. Five questions were designed to obtain information about belief and practice of student about insects. All statistics analysis was carried out using the SPSS ver. 11.5, EPI6, STATA 80, chi-square, and fisher exact test. A $P < 0.05$ was considered statistically significant.

The medical research coordinating committee of the national institute for medical research in school of public health, Tehran University of Medical Sciences approved the research protocol. All students' survey questionnaires were administrated with individual verbal informed consent.

3. Results

Fifty-one percent of audiences ($n=153$) have good knowledge. Out of 29.3% admitted that insect as a dangerous agent. Of 59.8% of students indicated that association between entomophobia and insects size. Twenty-three percent of respondents cited that entomophobia caused by insects biting, twenty percent by diseases transmission, 8 percent by hyper sensitivity, 45% by fear of mental and emotional, and 4% by others factors. About seventy-four percent ($n=221$) stated that there is a relation between entomophobia and human habitat whereas twenty-six percent ($n=79$) reject it. There are no significant difference between age and entomophobia.

One hundred eight of audiences believed the association between entomophobia and density of insects. Out of 71% of audiences believe to association between sex and entomophobia and 98% stated females are more afraid of insects than males. The most of the respondents (71.8%) believed that entomophobia is natural and the rest acquiring phenomenon.

When questioned a best way against entomophobia, 20.6% ($n=62$) expressed the use of educational skills, 25.6% ($n=77$) Arthropod control, 29.6% (89) sport, travelling and visit of natural history museum and the rest (23.6) no mentioned opinion.

Out of 37% ($n=111$) cited the first reaction is killing of nuisance insects, 24.5% screaming, 22.5% escape, 14% going to the up to place and the rest 2% other reactions. The most of the audiences, 54% stated entomophobia had not effects of daily activity. Among of interviewers, 36.6% ($n=110$) stated stress, 21% ($n=63$) heartbeat increasing, vomiting 12.3% ($n=37$), all of signs 19% ($n=57$) and the rest 11% ($n=33$) other sign and keys such as headache, fever and chilling due to entomophobia.

4. Discussion

This is a first report about entomophobia in Iran, also this

investigation is the first study about knowledge, believe and practice due to entomophobia in the world. Previsions study was occurred in restricted area and specific diseases such as visceral leishmaniasis in Iran [3], Dengue hemorrhagic fever in Trinidad and Tobago [4], and malaria in Malaysia [5].

A previous study among the mother of the families occurred in north west of Iran due to visceral leishmaniasis indicated that the knowledge of interweavers due to insect was relatively poor [4,5,], where 51 of student during our study have good knowledge due to insect. This result was the less than in Malaysia [5], and Zambia [6], similar to that in Trinidad and Tobago [4], and more than in Nepal [7]. Knowledge of study population about sign and symptoms of entomophobia is good and more than 90% of students knew entomophobia symptoms and was relatively higher than Nepal [7]. The level of practice due to the control of insects was less than in Malaysia [5], Tanzania [8], and Cameron [9]. In our study only 25.6% ($n=22$) of students agree with Arthropod killing post exposure.

In the same study Prokop et al (2007) explored respondent's understanding of birds is more than other animals whilst, Prokop et al (2008 a) found that if the audients looked after pets, vertebrates or invertebrates, they had a better understanding of these animals [10,11]. Prokop et al. (2008b) found that girls showed better knowledge about the anatomy of animals and actually kept more animals than did boys [12]. He believed to more focus on rearing invertebrates and improving children's attitudes and knowledge about them [12]. In the same study Prokop et al (2008) cited that the keeping animals contributes to the increase of positive attitudes toward wild animals, and insects, bats or rats [13]. He mentioned that the audients especially girls had more negative attitudes toward insects in comparison with bats [13]. Tunnicliffe et al (2006) showed that the respondents possess a high sense of observing detail and interpreting visual material [14]. Tarlowski (2006) found that the effects of direct experiences with nature examined indirectly by comparing rural versus urban children and the biological expertise of parents affected the concepts of humans, mammals and insects held by 4–years old children [15].

Human attitudes towards on animals are varied and differential, depending on the animal evaluated [16]. This is a fact that the man fear in relation to unknown animals and plants in the world, therefore the early contact of a child with nature is beneficial in building positive attitudes toward plants and animals [17–20]. Gender differences in Human animal interactions, although the responses of male and females to ward on animals and plants in nature reported more similar, but in industrial countries, employed and empowered females had much greater concerns the males for animals' issues [21, 22].

Uses of the health and medicine service by the communities in the tropical area depend on the several factors such as the

availability of the service and education products. The low percentage of the students in our study expressed to health education against entomophobia, whereas most of them (72%) attended proper to control of nuisance insect. To compare with other countries where more than 80% of respondents attended to insect and diseases control, this seems to be influenced with the association of other programs such as health education, visited in natural history and insects museums.

In summery, regular educational and auditoria programs in different level of school, could increase the knowledge, believe, and practice of the students in the tropical area and should be resulted in the grated acceptance of the personal protection against vector–borne diseases and also friendly with beneficial insects.

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