

## Knowledge and Attitude of Persons Living with HIV+/AIDS (PLWAs) Towards HIV/AIDS in Iran

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**Abstract: Problem statement:** As number of Persons Living with HIV/AIDS (PLWAs) increases, caring for them is a new rising problem. The World Health Organization encourages caring these people at home. Patients themselves also prefer to stay at home than staying in hospital. Adequate knowledge and positive attitude are important factors in providing better care for a patient. **Approach:** This study was conducted to assess level of knowledge and describe attitudes existing between family members of PLWAs. A cross-sectional study was conducted on PLWAs to assess the basic level of knowledge and attitude regarding AIDS. One hundred family members of PLWAs were selected using simple random sampling. A three-part questionnaire was delivered to measure HIV/AIDS-related attitude and knowledge. **Results:** Mean score of participants were  $10.69 \pm 2.05$  of a maximum of 14 points in knowledge. Knowledge on some aspect of the disease was quite high in the study group; Mean score was  $25.42 \pm 6.05$  from a maximum of 40 points in attitude. Female gender, higher income and education level were associated with a greater level of knowledge. Parents in comparison with other relatives and persons older than 60 usually had lower level of knowledge. Patients with higher income or education level also had more positive attitude toward patient. **Conclusion:** The findings of the study suggest that the family members of patients living with AIDS have a satisfactory level of essential knowledge on HIV/AIDS. Most of them have good attitudes toward person with HIV/AIDS. However, there are some misconceptions about the routes of transmission that can be problems on the way of providing home-based care.

**Key words:** Knowledge, Attitude, persons living with HIV+/ AIDS, PLWAs

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### INTRODUCTION

Since first Acquired Immune Deficiency Syndrome (AIDS) case was reported in September 1984 (AIDS Division, 2001), this syndrome has now turned to a global health problem (Quinn *et al.*, 1986). A prevalence of 38.6 (33.4-46.0) million was estimated for HIV in 2005, (UNAIDS, 2006). Rising prevalence has put this syndrome in top of the list of mortal infectious disease (UNAIDS, 2000). Prevalence of AIDS in Iran has also had a constant rising pattern since first report in 1985. There are no reliable data on the

prevalence of AIDS in Iran. Figures which are reported by the health care system in Iran are about only 7510 cases in Iran, but this number has been estimated to be more than 30,000 cases by the World Health Organization (Newsletter of Aids, 2004; Ministry of Health, 2004). As number of persons living with HIV/AIDS (PLWAs) increases, caring for them is a new rising problem. The World Health Organization encourages caring these people at home, because family members can care them more carefully and compassionately (World Health Organization, 1993). Study has also shown that patients themselves also prefer

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to stay at home than staying in hospital (AIDS Division, 1996).

Knowledge is the understanding of a science, art or technique and attitude is a feeling or emotion towards a fact or state. Adequate knowledge and positive attitude are important factors in providing better care for a patient. Therefore, an organized program to improve these two factors between these family care-providers seems necessary. As a first step in planning this program, this descriptive study was conducted to assess level of knowledge and describe attitudes existing between family members of PLWAs.

### MATERIALS AND METHODS

This is a descriptive cross-sectional study conducted during year 2008 in Bandar Abbas, south part of Iran.

**Sample selection:** In the beginning of our study (April 2008), there were 380 registered cases of HIV infection in Bandar-Abbas. Of these 380 patients, 100 cases were randomly selected. Thereafter, a list including all family members of selected cases was prepared. Family member who were aged fewer than 15 were excluded. Finally, one family member was randomly selected for each patient.

**Data collection:** We prepared our questionnaire in 3 parts; first included demographic characteristics (Table 1). Second part consisted of 14 questions assessing level of knowledge and third part consisted of 13 questions which targeted attitudes of family members toward HIV/AIDS. Questions assessing knowledge were yes/no questions. Persons got one point for each correct answer and zero point for wrong answers. Questions about attitude had five answers. One could get 1-5 points for each answer. List of questions in both sections is presented in Table 2 and 3.

Validity of our questionnaire was confirmed by a group of infectious disease, health education and epidemiology specialists. Reliability of questionnaire was also confirmed in a test-retest study.

**Data analysis:** Filled questionnaires were coded and data was entered in statistical software SPSS version 13.0 for windows (SPSS Inc., Chicago, IL). Numerical variables were presented as means, while categorized variables were summarized by absolute frequencies and percentages. Association between demographic factors

and attitude or level of knowledge was performed using chi-square test. All p values were 2-tailed, with statistical significance defined by p value  $\leq 0.05$ .

Table 1: Demographic characteristics of subjects

Demographic factor	number	Percent (%)
Gender		
Male	31	31
Female	69	69
Age (year)		
20 or less	1	1
21-40	51	51
41-60	26	26
More than 60	22	22
Education level		
Illiterate	30	30
Elementary or mid-school	45	45
Higher level	25	25
Occupation		
Jobless	11	11
Self-employed	17	17
Employee	3	3
Farmer	3	3
Housekeeper	66	66
Familial relationship		
Parent	34	34
Brother/ sister	15	15
Children	12	12
Spouse	39	39
Income (\$)		
Less than 100	42	42
100-300	49	49
More than 300	9	9
Duration living with patient (year)		
Less than 1	2	2
1-4	12	12
5-8	19	19
9-12	14	14
13-16	4	4
17-20	7	7
More than 20	42	42

Table 2: The respondents' knowledge on HIV/AIDS

Knowledge questions	Number of correct answers	Percent of correct answers
Questions regarding route of transmission		
Insect bites	36	36
Embrace and kissing	96	96
Breast-feeding	56	56
Vertical	92	92
Shared dish	92	92
Cough and sneeze	49	49
Shared needle	100	100
Blood injection	100	100
Sexual transmission	100	100
Sharp instruments	99	99
Other questions		
Is disease preventable?	97	97
Can disease be asymptomatic?	35	35
Is there any cure?	65	65
Can disease be controlled?	52	52

Table 3: The respondents' attitude on HIV/AIDS

Attitude questions	Completely agree	Agree	No idea	Disagree	Completely disagree
They should receive treatment	32	68	0	0	0
They should be quarantined	0	1	12	69	18
They should receive care in home	6	78	14	2	0
They should receive care in special centers	1	12	15	64	8
You do sympathize with them	7	84	7	1	1
They are guilty	7	36	37	15	5
Their dishes should be separated	1	7	4	80	8
They should participate in social activities	7	51	27	14	1
	Very much	Much	Average	Little	Least
You are worried about being infected	9	24	14	43	10
Neighbors and relatives know about existence of disease in your home	0	3	55	34	8
Are you worried about neighbors and relatives?	23	58	2	16	1
You want to have baby from patient?	-	-	35	1	-
Do you like your children to be kissed by patient?	3	19	8	60	10

## RESULTS AND DISCUSSION

Mean age of the study population was 44.7±15.6 years. From 100 persons, 69 (69%) were female and 31 (31%) were male. Demographic data has been presented in Table 1.

Table 4 and 5 show score of patients in each question. Mean score of participants were 10.69±2.05 of a maximum of 14 points in knowledge. This score was 25.42±6.05 of a maximum of 40 points in attitude part. In both knowledge and attitude section, family members were put in five groups from poor to excellent knowledge or attitude based on sum of scores they gained in each question. Female gender, higher income and education level were associated with a greater level of knowledge. Parents in comparison with other relatives and persons older than 60 had more positive attitude toward AIDS. The level of knowledge between PLWAs was good.

Results of our study showed that level of knowledge between family members of PLWAs was good (Mean score 10.69±2.05 from a maximum of 14 points). About route of transmission, all participants knew that sexual relationship, shared needles and blood injection can transmit disease.

Also, more than 90% of our participants knew that disease can be transmitted via sharp needles or vertically and that disease cannot be transmitted by embracement, kissing and shared dishes. Comparable finding has been reported from South Africa by Anderson and Beutel (2007) in which nearly everybody in the sample knew that HIV infection is preventable.

Many family members think that disease can be transmitted via insect bites (64%) or cough and sneeze (51%) and many do not know about transmission of disease via breast-feeding. In a population-based study by Montazeri (2005), it was shown that although

misconceptions exist among Iranian about AIDS, in general they have fairly good knowledge and have positive attitudes towards AIDS and people with AIDS (Montazeri, 2005). Comparing results of this study with our results, it seems that level of knowledge is even better in family members of patients living with AIDS. But our study indicates existence of misconceptions as well.

Similar misconceptions of transmission of HIV through mosquitoes have been reported from Kenya by Peltzer and Promtussananon (2005) among Kenyan secondary school students.

Only thirty 5% knew about asymptomatic phase of disease. About treatment of disease this shortage is more significant. Although ninety 7% of patients knew that disease is preventable, 52% knew that disease can be controlled while about 67% of them thought that disease can also be cured. It is interesting to know that misconceptions in our study is similar to general population in Iran where transmission of disease via insect bites or cough and sneeze were shown to be common in general population in Iran (Montazeri, 2005).

In a study by Maneesriwongul *et al.* (2004) in Thailand, family caregivers of patients living with AIDS themselves emphasized this deficiency of knowledge about disease and management of patients. In a study by Kipp *et al.* (2007) in Uganda, family caregivers participating study not only indicated lack of enough knowledge, but also, they claimed that they have acquired most of knowledge or skills in care giving through learning on the job.

In the attitude section we found attitude of our participants positive (mean score of 25.42±6.05 from a maximum of 40 points). However, 43% of family members think that patients are guilty, 91% sympathized with patients. Only 15% did not give patients right for participating in social activities.

Table 4: Definition of knowledge level

Total correct answers	Knowledge level
1-4	Poor
5-7	Middling
8-12	Good
13-14	Very good

Table 5: Definition of attitude degree

Score	Degree of attitude
≤8	Poor
9-16	Middling
17-24	Good
25-32	Very good
33-40	Excellent

All participants agreed that patients should receive treatment and only one family member thought that patients must be quarantined. This positive attitude was also shown in general population in Iran (Montazeri, 2005). In the mentioned study Maneesriwongul *et al.* (2004) in spite of empathy of family caregivers with patients, many described their experiences facing the stigma of HIV/AIDS. Some family members did not want patients to come home but preferred that they remain in the hospital. They did not want their neighbors to know that someone in the family had AIDS. They were afraid that they might be rejected by people in the community (Maneesriwongul *et al.*, 2004). It is interesting and encouraging that 84% of family members in our study had positive attitude toward caring patients in home and 72% had negative attitude toward caring them in special centers. But it seems that fear resulting from lack of knowledge and stigma of AIDS still exist between family members. Thirty five percent of family members are worried about being infected. Forty two percents claimed that neighbors and relatives know less or least about existence of disease and 82% are seriously worried about neighbors and relatives. Seventy percent do not like their children to be kissed by patients.

In study by Montazeri A. were associated with Educated persons also had more positive attitudes toward patients. Gender difference did not exist regarding nor level of knowledge neither attitude.

Female gender; higher income and education level were associated with a greater level of knowledge. Either parent in comparison with other relatives or persons older than 60 had lower level of knowledge.

Our findings are supported by Montazeri (2005), which believes that younger age and higher educational level are in relation to higher knowledge level. Patients with higher income or education level also had more positive attitude toward patient. Such results have been reported by Montazeri (2005) from Iran and other studies in

other parts of world (Amirkhanian *et al.*, 2001; Lanouette *et al.*, 2003; National Center for Health Statistics, 1992).

## CONCLUSION

Finally we concluded that; family members of patients living with AIDS have good level of knowledge about AIDS and positive attitude toward patients and caring them at home. But there are still misconceptions about disease and fear and worries between them that can be problems on the way of providing home-based care. These misconceptions, fears and worries need to be addressed seriously before planning home-based care systems.

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