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±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±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

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...
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 ≤ 0.05.
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. 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 (Amirkhianian 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.

**REFERENCES**

Anderson, K.G. and A.M. Beutel 2007. HIV/AIDS Prevention knowledge among youth in Cape Town, South Africa. J. Soc. Sci., 3: 143-150. DOI: 10.3844/jssp.2007.143.150

AIDS Division, 1996. Health care and social service for HIV/AIDS patients at home. Ministry of Public Health.

AIDS Division, 2001. Department of communicable disease control, report on HIV/AIDS and STI in Thailand. Inter Country Consultation for Preparation for ASEAN Summit.

Amirkhianian, Y.A., J.A. Kelly and D.D. Issayev, 2001. AIDS knowledge, attitudes and behavior in Russia: Results of a population-based, random-digit telephone survey in St Petersburg. Int. J. Std. AIDS, 12: 50-57. PMID: 11177483

Kipp, W., D. Tindyebwa, T. Rubaale, E. Karamagi and E. Bajenja, 2007. Family caregivers in rural Uganda: The hidden reality. Health Care Women Int., 28: 856-871. DOI: 10.1080/07399330701615275

Lanouette, N.M., R. Noelson, A. Ramamonjisoa, S. Jacobson and J.M. Jacobson, 2003. HIV and AIDS-related knowledge, awareness and practice in Madagascar. Am. J. Public Health, 93: 917-919. PID: 12773354

Maneesriwongul, W., S. Panutat, P. Putwatana, Y. Sirapongam and L. Ounprasertpong et al., 2004. Educational needs of family caregivers of persons living with HIV/AIDS in Thailand. J. Assoc. Nurses AIDS Care, 15: 27-36. DOI: 10.1177/1055329004266032

Ministry of Health, 2004. HIV/AIDS statistics. Ministry of Health.
Montazeri, A., 2005. AIDS knowledge and attitudes in Iran: Results from a population-based survey in Tehran. Patient Educ. Counsel., 57: 199-203. DOI: 10.1016/j.pec.2004.05.014

National Center for Health Statistics, 1992. AIDS knowledge and attitudes for data from the national health interview survey, advanced data from vital and health statistics. Public Health Service.

Newsletter of Aids, 2004. Management and champion of disease. Ministry of Health and Medical Education Undersecretary for Medical Education and University Affairs.

Quinn, T.C., J.M. Mann, J.W. Curran and P. Piot, 1986. AIDS in Africa: An epidemiologic paradigm. Science, 234: 955-963. DOI: 10.1126/science.3022379

Peltzer, K. and S. Promtussananon, 2005. HIV/AIDS knowledge and sexual behavior among junior secondary school students in South Africa. J. Soc. Sci., 1: 1-8. DOI: 10.3844/jssp.2005.1.8

UNAIDS, 2006. Report on the global AIDS epidemic. UNAIDS.

UNAIDS, 2000. The HIV/AIDS pandemic and its gender implications. UNAIDS. http://www.un.org/womenwatch/daw/csw/hivaids/report.pdf

World Health Organization, 1993. Handbook on AIDS Home Care. WHO, New Delhi, India, ISBN: 10: 9789994774203, pp: 178.