

Needs assessment of people living with HIV/AIDS in Taiwan

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Objectives: The objective of this study was to assess and compare the needs of HIV/AIDS patients in outpatient clinics, prisons and residential care facilities in northern of Taiwan. **Methods:** From December 2005 to April 2006, 367 people living with HIV/AIDS (PLWHAs) from the outpatient special AIDS clinics of the Taipei City Hospital, Taipei Detention Centers and Tao Yuan Prisons and two residential care facilities in Taipei participated in this study. The data was analyzed using the Statistical Package of Social Sciences version 12. **Results:** The results showed that one-third of the all the participants were unaware of their CD4 count (32%) and their viral load (37.8%). Moreover, support from health care workers and personal support were identified as the most important needs among PLWHAs. The following items were listed among PLWHAs from the residential care facilities: financial assistance, transportation, and personal relations. The perceived physical and psychological health was particularly weak among PLWHAs in residential care facilities. Patients in residential care facilities and prisons tended to have higher levels of psychological and social needs. The survival strategies were mostly based on nutrition, antiretroviral therapy, exercise, family care and peer support, however, work seemed to be very important for patients living in residential care facilities. **Conclusions:** Results of this research projects shown that more counseling and information should be provided to the patients. The fact that most of the patients in prisons have never received CD4 count and the viral load tests indicates that these tests should be provided in prisons. (*Taiwan J Public Health*. 2007;**26**(1):38-48)

Key Words: Needs, Assessment, People living with HIV/AIDS, Taiwan, Halfway house

INTRODUCTIONS

Several studies have revealed a variety of fundamental and imperative needs expressed

by people living with HIV/AIDS (PLWHAs). Needs among HIV patients go beyond the treatment effects or the diseases processes and may include psychological, physical, economic, cultural, spiritual, service or information needs[1].

The needs of PLWHAs may also fundamentally vary according to the level of development of a country. Needs assessments for home-based care conducted in low income countries such as Malawi and Uganda showed that the needs of people living with HIV/

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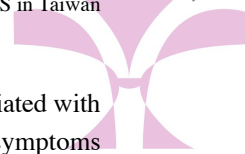
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AIDS in these counties fell into the following categories: from basic day-to-day needs, to medical and nursing needs (such as primary care, tuberculosis-related care, and care for diarrhea and other symptoms), financial assistance, emotional needs (such as treatment for depression, suicidal thoughts, and worries, empathy, and security of survivors, and spiritual needs[2].

PLWHAs are subjected to stigmatization and fear. In St Petersburg, Russia, Amirkhanian et al. concluded that HIV-infected persons in Russia experience a wide range of social, psychological, and care access problems[3]. In addition evidence indicates that prevention and care are linked[4]. Care can be linked to prevention opportunities through enhancing solidarity and reinforcing the rights of individuals and communities, whereas inadequate care encourages the spread of HIV through the further marginalization of PLWHAs and their families[4]. Smith and Rapkin found that the current trends in AIDS care including growing emphasis on home and community-based services may place HIV patients at a greater risk for unmet need[5]. However Guzman found that home-based care (HBC) and community-based care (CBC) model of care are well suited to settings where resources are scarce and health care facilities and personnel are limited. The author concluded that PLWHAs who receive care in the home often get more support and may be better able to cope with their illness and enjoy a higher quality of life[4].

Persons in an unstable living situation and those with lower perceived health status are significantly more likely to have an unmet need[6]. Regarding the impact of unmet needs among people living with HIV/AIDS, Reilly et al., found that the practice of unsafe sex was significantly related to both the number of needed services and the number of unmet needs[7]. In the United States, Smith et al.,

pointed out that unmet need was associated with the severity of the illness (i.e. more symptoms and hospitalizations)[5]. However Mac Neil et al., in Tanzania, found that enhanced care and support did not have a significant impact on risk reduction in newly diagnosed HIV positive patients' population[8]. The study suggested that learning one is positive through post-test counseling, the availability of condoms, and a supportive family situation contributed to behavior change.

Vulnerable groups such as incarcerated PLWHAs frequently cannot gain access to the medical care and support services that are provided to other patients in the communities[9]. Because prisoners are considered as deviants and treated as social outcasts, the improvement of their conditions is not a priority of the government[10].

In Taiwan, since the first AIDS case was identified in December 1984 the number of HIV/AIDS has been increasing. The report on HIV/AIDS from Taiwan CDC showed that from 1984 to 2006/4/30 about 11,757 HIV positives were identified and 2,627 had developed full-blown AIDS[11]. To date, in Taiwan, very few studies have systematically assessed the basics needs of HIV/ AIDS patients, especially their psychosocial needs. In addition few studies have targeted vulnerable groups such as prisoners living with HIV/ AIDS and patients living with HIV/AIDS in residential care facilities. The objective of this study was to assess and compare the needs of HIV/AIDS patients in outpatient clinics, prisons and residential care facilities in northern region of Taiwan in order to provide health authorities with adequate information that can help them to design appropriate services for HIV/AIDS patients.

METHODS

From December 2005 to April 2006, a

descriptive cross-sectional study was used to assess the needs of PLWHAs from the special outpatient clinics of Taipei City Hospital, residential care facilities, Taipei Detention Center and Taoyuan prison. A total of 367 HIV/AIDS patients were selected as a convenience sample from the above mentioned settings. A semi-structured, self-administered and anonymous questionnaire was administered to the study sample. A specific questionnaire was designed for each study setting. The questionnaires included closed-ended and open-ended questions. The questionnaires were translated into Chinese for the sake of understanding of HIV/AIDS patients and back translated to English to validate the accuracy of the translation. We used the health care needs scale [12] to assess the psychosocial needs. All items were presented in multiple-choice format and the answers were scaled from 1 to 4, with 1 indicating no need at all and 4 indicating the highest level of need as follow: 1, no need at all, 2, very slight needed, 3, somewhat needed and 4, very needed. For those PLWHAs who were illiterate, they received help from the community social workers or the nurse in charge of administrating the questionnaire. A committee of six experts in HIV/AIDS reviewed the questionnaires before data collection.

Among the patients, 171 were from the special outpatient clinics of Taipei City Hospital, 48 patients from the residential care facilities, 92 from Taipei Detention Center and 56 from Taoyuan prison. About the eligibility criteria, the patient should be at least 18 years old and HIV-1 sero-positive. We excluded patients with neuropsychiatric disorder and hospitalized patients. This study was approved by the Institutional Reviewing Board of the Taipei City Hospital and the Clinical Trials and Ethics Committee of the National Yang-Ming

University. Informed consent was obtained from each participant before we administrated the questionnaire. The overall response rate in the 3 settings was 93.62%.

The data were analyzed using the Statistical Package of Social Sciences (SPSS 12.0). Student t-test was employed to obtain the means and standard deviations and χ^2 test was used to determine the significance of the differences between two groups. The p value of < 0.05 was considered as statistically significant.

RESULTS

Socio-demographic characteristics of the patients

A total of 367 PLWHAs from two residential care facilities in Taipei, Taipei Detention Center, Tao Yuan prison and Taipei City Hospital participated in the survey. The demographic data and socio-economic status of the participants were summarized in Table I. The mean age was 32.67 years. Among the patients, 64 (18%) were females and 292 (82%) were males. The majority was single (72.4%), most of them had completed junior high school (25.1%) or senior high school (34.1%). The overall sexual orientation was 46% for heterosexuality and 39.6% for homosexuality. In term of risk factors associated with the disease, the vast majority of outpatients' clinic participants (77.6%) thought homosexuality/bisexuality to be the cause of their disease. Almost nine out of ten patients in prisons (88.3%) thought they contracted the virus through needles sharing or diluted solutions. More than half (57.8%) of people living with HIV/AIDS in residential care facilities believed they became infected through homosexuality/bisexuality [see Table 1] .

Table 1. Socio-demographic Characteristics of HIV/AIDS Patients Living in Outpatient STD Clinic, Residential Care Facilities, and in Prisons

| Characteristic | STD clinic (n=171) | | Residential care facilities (n=48) | | Prisons (n=148) | | Total (n=367) | | X ² | P-value |
|-------------------------|-----------------------|-------|---------------------------------------|-------|--------------------|-------|------------------|-------|----------------|---------|
| | n | % | n | % | n | % | total | % | | |
| Age | | | | | | | | | 96.34 | <0.001 |
| 18 - 29 | 82 | 48.8% | 7 | 14.6% | 67 | 45.3% | 156 | 42.9% | | |
| 30 - 39 | 67 | 39.9% | 15 | 31.3% | 54 | 36.5% | 136 | 37.4% | | |
| 40 - 49 | 18 | 10.7% | 13 | 27.1% | 27 | 18.2% | 58 | 15.9% | | |
| 50 - 59 | 1 | 0.6% | 10 | 20.8% | 0 | 0.0% | 11 | 3.0% | | |
| 60 - 69 | 0 | 0.0% | 1 | 2.1% | 0 | 0.0% | 1 | 0.3% | | |
| 70 - 79 | 0 | 0.0% | 1 | 2.1% | 0 | 0.0% | 1 | 0.3% | | |
| 80 and more | 0 | 0.0% | 1 | 2.1% | 0 | 0.0% | 1 | 0.3% | | |
| Gender | | | | | | | | | 71.03 | <0.001 |
| Female | 2 | 1.2% | 6 | 12.8% | 56 | 37.8% | 64 | 18.0% | | |
| male | 159 | 98.8% | 41 | 87.2% | 92 | 62.2% | 292 | 82.0% | | |
| * Marital status | | | | | | | | | 93.73 | <0.001 |
| Single | 148 | 88.6% | 38 | 79.2% | 76 | 51.7% | 262 | 72.4% | | |
| Married | 4 | 2.4% | 0 | 0.0% | 30 | 20.4% | 34 | 9.4% | | |
| Divorced | 4 | 2.4% | 6 | 12.5% | 34 | 23.1% | 44 | 12.2% | | |
| Separated | 1 | 0.6% | 0 | 0.0% | 3 | 2.0% | 4 | 1.1% | | |
| Widowed/loss partner | 0 | 0.0% | 2 | 4.2% | 0 | 0.0% | 2 | 0.6% | | |
| Living with partner | 5 | 3.0% | 2 | 4.2% | 2 | 1.4% | 9 | 2.5% | | |
| Other | 5 | 3.0% | 0 | 0.0% | 2 | 1.4% | 7 | 1.9% | | |

* Before being in residential care facilities for those in residential care facilities or before being jailed for prisoners.

Psychosocial needs of people living with HIV/AIDS

1. Daily living needs

There were no particular daily living needs among the participants. However patients in residential care facilities mentioned that they had needed assistance in the past six months for strenuous activities such as laundry, mean 2.02 (SD \pm 1.15), housecleaning, mean 2.00 (SD \pm 1.14), visiting relative and friends, mean 2.23 (SD \pm 1.06) and fitness /exercise, mean 2.00 (SD \pm 1.22).

2. Service and social support needs

As shown in Table 2, the most needed

service and social services were the legislation protecting the right of people living with HIV/AIDS with a mean score of 3.15 (SD \pm 1.05), the information need on HIV/AIDS with a mean score of 2.82 (SD \pm 1.02), the support from health care workers with a mean score of 2.73 (SD \pm 1.00) and the personal support with a mean score of 2.71 (SD \pm 1.07). However patients in residential care facilities seemed particularly in need of services such as the financial assistance to cope with daily personal livelihood with a mean score of 3.69 (SD \pm 0.67), the transportation support with a mean score of 3.51 (SD \pm 0.82), and personal relations with a mean score of 3.22 (SD \pm 0.60).

Table 2. Service and Social Support among HIV/AIDS Patients in Outpatient STD Clinic, Residential Care Facilities and Prisons

| Service and social support needs | Outpatient STD clinic (n=171) | | Residential care facilities (n=48) | | Prisons (n=148) | | Total (n=367) | | P-value |
|----------------------------------|----------------------------------|--------------------------------|---------------------------------------|--------------------------------|--------------------|--------------------------------|------------------|-----------------|---------|
| | n | Mean \pm SD | n | Mean \pm SD | n | Mean \pm SD | n | Mean \pm SD | |
| Nutrition | 167 | 1.79 \pm 0.94 ^{abc} | 45 | 2.93 \pm 0.75 ^{abc} | 142 | 2.16 \pm 1.11 ^{abc} | 354 | 2.09 \pm 1.06 | <0.001 |
| Personal relations | 166 | 2.36 \pm 1.08 ^{ab} | 45 | 3.22 \pm 0.60 ^{bc} | 145 | 2.56 \pm 1.10 | 356 | 2.55 \pm 1.07 | <0.001 |
| Personal support | 167 | 2.42 \pm 1.09 ^{ab} | 44 | 3.27 \pm 0.62 | 145 | 2.86 \pm 1.06 ^{ac} | 356 | 2.71 \pm 1.07 | <0.001 |
| Adjustment | 167 | 2.23 \pm 1.10 ^{ab} | 45 | 2.76 \pm 0.74 | 144 | 2.61 \pm 1.02 ^{ac} | 356 | 2.45 \pm 1.05 | 0.001 |
| Health workers support | 167 | 2.63 \pm 1.10 ^{ad} | 45 | 3.02 \pm 0.78 ^{ad} | 144 | 2.76 \pm 0.93 ^{ad} | 356 | 2.73 \pm 1.00 | 0.060 |
| *Getting a job | 167 | 1.94 \pm 0.97 ^{abc} | 45 | 3.11 \pm 1.17 ^{abc} | 144 | 2.54 \pm 1.09 ^{abc} | 356 | 2.33 \pm 1.12 | <0.001 |
| Legislation AIDS | 167 | 3.05 \pm 1.19 ^{ab} | 45 | 3.53 \pm 0.92 | 144 | 3.15 \pm 0.89 ^{ad} | 356 | 3.15 \pm 1.05 | 0.023 |
| *Transportation | 166 | 1.55 \pm 0.73 ^{abc} | 45 | 3.51 \pm 0.82 ^{abc} | 143 | 2.08 \pm 1.08 ^{abc} | 354 | 2.01 \pm 1.09 | <0.001 |

Table 3. Service and Social Support among HIV/AIDS Patients in Outpatient STD Clinic, Residential Care Facilities and Prisons

| Service and social support needs | Outpatient STD clinic (n=171) | | Residential care facilities (n=48) | | Prisons (n=148) | | Total (n=367) | | P-value |
|----------------------------------|----------------------------------|--------------------------------|---------------------------------------|--------------------------------|--------------------|--------------------------------|------------------|-----------------|---------|
| | n | Mean \pm SD | n | Mean \pm SD | n | Mean \pm SD | n | Mean \pm SD | |
| Condom provisions | 167 | 1.89 \pm 0.98 ^{ab} | 45 | 2.82 \pm 1.28 ^{bc} | 144 | 1.77 \pm 1.01 | 356 | 1.96 \pm 1.08 | <0.001 |
| Financial assistance | 167 | 1.85 \pm 0.95 ^{abc} | 45 | 3.69 \pm 0.67 ^{abc} | 146 | 2.57 \pm 1.13 ^{abc} | 358 | 2.37 \pm 1.16 | <0.001 |
| Health insurance | 164 | 2.15 \pm 1.29 ^{abc} | 45 | 3.44 \pm 0.84 ^{abc} | 143 | 2.96 \pm 1.01 ^{abc} | 352 | 2.64 \pm 1.23 | <0.001 |
| House | 166 | 1.52 \pm 0.77 ^{abc} | 44 | 2.50 \pm 0.93 ^{abc} | 144 | 1.93 \pm 1.06 ^{abc} | 354 | 1.81 \pm 0.97 | <0.001 |
| Needles exchange | 165 | 1.48 \pm 0.87 ^{ac} | 45 | 1.29 \pm 0.73 ^{bc} | 143 | 1.80 \pm 1.02 | 353 | 1.59 \pm 0.93 | 0.001 |
| Information HIV/AIDS | 167 | 2.59 \pm 1.14 ^{ab} | 44 | 3.05 \pm 0.75 | 146 | 3.02 \pm 0.87 ^{ac} | 357 | 2.82 \pm 1.02 | <0.001 |
| Education need | 167 | 1.47 \pm 0.80 ^{ac} | 38 | 1.26 \pm 0.64 ^{bc} | 143 | 1.79 \pm 0.99 | 348 | 1.58 \pm 0.89 | <0.001 |

* After being released for HIV/AIDS patients in prisons and before being in residential care facilities for patients in residential care facilities.

Mean score assessment

1: no need at all, 2: very slight needed, 3: somewhat needed, 4: very needed

Tukey multiple comparisons: the mean difference is significant at the 0.05 level

^{ab} the mean difference is significant at the 0.05 level between outpatients clinic and residential care facilities

^{ac} the mean difference is significant at the 0.05 level between outpatients clinic and prison

^{bc} the mean difference is significant at the 0.05 level between residential care facilities house and prison

^{abc} the mean difference is significant at the 0.05 level between outpatients clinic, residential care facilities and prison

nd the mean difference is not significant at the 0.05 level.

One of the surprising finding in this study was despite the fact that nearly all the prisoners 143 (97.3%) said they shared needles/diluted solution, needles exchanges services seemed not to be a priority concern for them, mean 1.80 (SD \pm 1.02). Housing need was also low among all the participants as well, mean 1.80 (SD \pm 0.96).

Health care needs/ treatment need

Labs and test with a mean score of 3.30 (SD \pm 0.87) was the most needed, as well as the counseling on HIV/AIDS, mean 2.71 (SD \pm 0.96) and the dental care, mean 2.62 (SD \pm 1.02). Patients in residential care facilities mentioned highly active anti-retroviral therapy (HAART) as important, mean 3.02 (SD \pm 0.88) and the treatment of opportunistic infections, mean 2.73 (SD \pm 0.86).

Health care needs/ access to care need

The major problem was fear around confidentiality; mean 2.72 (SD \pm 1.20). However people living in residential care facilities mentioned as major problems the stigma/discrimination from the community, mean 3.60 (SD \pm 0.82), the financial problem, mean 3.50 (SD \pm 0.97) and the transportation problem, mean 3.31 (SD \pm 0.95).

Perceived health status and disclosure

Nearly half of the participants perceived their physical and psychological health status as good (49.2% and 49.5%, respectively). However patients in residential care facilities were more likely to describe their physical and psychological status as weak (72.3% and 74.5%, respectively) compare to those in outpatient clinic (48.2% and 42.4%, respectively) and HIV/AIDS patients in prisons (46.9% and 52.4%, respectively). The difference was statistically significant ($X^2=10.05$, p-value=0.007 for the perceived

physical health status, and $X^2=15.52$, p-value<0.001 for the perceived psychological health status).

Concerning disclosure most of the participants 172 (49.9%) said they didn't have a partner, 105 (30.4%) said their partner knew about their HIV positive status, and 68 (19.7%) said their partner didn't know.

Substance abuse, needle sharing and condom use

Regarding substance abuse, the most used substances were tobacco (58.3%), opium/morphine/ heroin (39.1%), alcohol (33.7%), amphetamine (25.7%) and sleeping pills (24.9%). Nine out of ten (91.2%) patients in prisons used opium/morphine/ heroin vs. 0.6% in outpatient's clinic and 4.5% in residential care facilities ($X^2= 288.06$, p-value<0.001).

Forty-two percent (42.1%) of the participants shared needles or diluted solution. However almost all (97.3%) of the prisoners shared needles vs. 2.9% in outpatients clinic and 10.9% in residential care facilities ($X^2=308.86$, p-value<0.001).

In term of condom or other barrier used when having sexual activities, 150 (41.6%) participants said they didn't have sexual activities, 77 (21.3%) said always used condom, 87 (24.1%) said used condom sometime and 47 (13%) said never used condom when having sexual activities. Patients in prisons were more likely not to use condom or other barrier when having sexual activities (28.5%) than those in outpatients' clinic (2.4%) and in residential care facilities (4.3%) ($X^2=109.31$, p<0.001).

The survival strategies of people living with HIV/AIDS

We used 15 items to assess the survival strategies of people living with HIV/AIDS in the 3 places. The overall top 5 strategies were

nutrition, HAART, exercise, and care given by family member and peer support. Table 3 presents services and social support among HIV Patients in the three study sites.

DISCUSSIONS

This study assesses and compares the needs of people living with HIV/AIDS in outpatients' clinic, in residential care facilities and prisons. The results supported the finding of several other studies indicating that people living with HIV/AIDS have substantial needs especially psychosocial need [1,6,13,14] and revealed a great difference between the patients in outpatients' clinic and those in residential care facilities and prisons.

Labs and Test Need

About one-third of the participants didn't know their CD4 count (32%) and their viral load (37.8%). The lack of knowledge regarding labs test (CD4 count and viral load) is one of the interesting findings of this study and confirms the overwhelming needs expressed in term of labs and test needs among all the patients who participated in the survey (mean 3.30, SD \pm 0.87). A possible explanation of this situation is the lack of clinical counseling/information as confirmed by the information need on HIV/AIDS (mean 2.82, SD \pm 1.02), and the counseling need on HIV/AIDS (mean 2.71, SD \pm 0.96) in this study and other reports about the PLWHAs' needs in Taiwan[15]. Another explanation is the failing to give the results of these tests by health workers or maybe the tests were not done. An alternative to solve this problem will be to involve much more nurses and the social workers in providing counseling/information for HIV/AIDS patients since physicians may not have enough time to deal with each case. There is also a need to provide these tests in prison as a vast majority

of the prisoners said they never did these tests before. The percentages of HIV-1-infected inmates have been tested for their CD4 and viral loads were 39.3% and 44.2%, respectively. It is very important for them to have such tests since it is very helpful for them to understand their clinical status.

Psychosocial Need

About the psychosocial needs, the need for assistance for strenuous daily activities such as laundry, housecleaning, exercise and visiting relative and friends by people living with HIV/AIDS in the residential care facilities was probably due to the fact that most of the patients in residential care facilities were terminally-ill AIDS patients. This is consistent with the findings of Smith et al. where the greatest completely unmet need of AIDS patients was doing strenuous tasks and activities[5].

Service and Social Support Need

Regarding service and social support needs, the need for legislation protecting the right of people living with HIV/AIDS was high. However in Taiwan, the law protects the right of every citizen including people living with HIV/AIDS. The overwhelming need to take such legislation might be due to a lack of knowledge of this law or the existence of some loopholes that have diminished the effectiveness of the law protecting the rights of HIV/AIDS patients[16] or that the law may just protect severe case of violation of HIV/AIDS patients' rights.

Financial Assistance Need

The high need of financial assistance

to cope with daily personal livelihood in residential care facilities is consistent with those of Molassiotis et al., where income/financial resources and money management were the top of the needs expressed[1]. The high level of average monthly income among patients in outpatients' clinic seemed to be significantly influenced by their lower needs for service and social support, unlike those in residential care facilities and prisons who had no income. The lack of income in residential care facilities may have a direct link with their financial and transportation needs.

Information Need

The high information need by the prisoners is a good sign of their awareness towards the disease, since despite their relative adequate knowledge about HIV/AIDS, misconceptions regarding the modes of transmission is pervasive[17], with erroneous believe such as sharing needles or other items of injecting equipment without any risk of becoming infected with HIV[17,18]. This misconception probably explains the relative low level of needle exchange service needs (mean=1.80, SD \pm 1.01) expressed by prisoners despite the fact that almost all of them were sharing needles/diluted solution (97.3%).

Health Workers and Personal Support Need

The high rating for need for health workers support and personal support confirms the importance of psychological support for people living with HIV/AIDS, and the necessity for physicians and others health workers to consider this aspect while providing health care or any kind of health related services to these patients. This findings may suggest also the lack of family support towards people living with HIV/AIDS. The relative low need for housing in our study may be due to the fact most

patients in outpatients clinics were employed, earned substantial monthly income and were living in their own house or a house that they rented. Patients in residential care facilities were relatively well housed as well because the NGOs in charge of their everyday life obtained subsidies from the government to help them cope with the financial burdens of housing.

Health Care Need

Overall the health care need was relatively low among the patients. This might be explained partly by the fact that a majority of the people living with HIV/ AIDS in Taiwan, like other citizens in the country, have national health insurance. Indeed the lack of insurance is associated with barriers to care[19]. The need for HAART and the treatment of opportunistic infections by patients in residential care facilities should be seen as an expression for the necessity to continue to receive these treatment from the national health insurance rather than a real lack of these medications. The high level of labs and test among the 3 groups of HIV/AIDS probably suggest their wish for more clinical counseling and information on HIV/ADS as mentioned above. Since there is no cure for the disease HIV/AIDS patients might be anxious about their health status and need to be reassured through counseling and other information.

In term of health care needs with regard to access to care, patients in outpatients' clinic had almost no health care needs compare to those in residential care facilities and prisons. One explanation of this fact is the good quality of care they received in the outpatients' clinic. Another explanation is that most the patients in this setting had an employment and 88.1% of them had an average monthly income more than \$ NT 16,000.

The fear around confidentiality mentioned

by the patients was certainly linked to the misconceptions about HIV/AIDS[17,20,21]. This is consistent with the finding of Sauka and Lie where concerns for privacy and the importance of confidentiality were stressed as a main prerequisite for trusting relationship with doctors[22] and, therefore, for a successful counseling process. Although stigma and discrimination tend to decrease in Taiwan, the early strategy of public education and prevention of HIV/AIDS was fear-based and therefore had caused fear and misconception about the disease in the general public and had created social stigma around HIV/AIDS[21].

Perceived health status was higher among outpatients clinic participants compared to those who stayed in residential care facilities. This might be related to the fact that most of the patients in residential care facilities were terminally ill AIDS patients and as expected had weaker physical and psychological health status. This is confirmed by the low level of CD4 count among them (27.1% had their CD4 less than 200 cell/mm³) compared with those in prisons (1.4% had their CD4 less than 200 cell/mm³) and patients in outpatients' clinic (10.9% had their CD4 less than 200 cell/mm³).

Survival Strategies

The survival strategies were mostly based on nutrition, HAART, exercise, care given by family member and peer support. In residential care facilities they regarded work as the best survival strategy. A possible explanation is that patients in residential care facilities are unemployed and it is known that being a worker has a major impact on one's psychological health and quality of life[16]. In prison, the care given by family member as best strategy to cope with their disease means that despite being incarcerated and moreover living with HIV, they seek support from their family and relatives.

Despite the fact that we used a self-administration anonymous questionnaire, we cannot rule out the possibility of biased self-reports that may be the main limitation of this study. In spite of this limitation this is the first large-scale survey on the needs of PLWHAs in Taiwan and the results will be very useful for the improvement of their quality of life.

CONCLUSIONS

Differences in needs between people living with HIV/AIDS in outpatient's clinic, residential care facilities and prisons seems very important: patients in residential care facilities and prisons tend to need greater psychological support and more social service assistances. Overall the information needs on HIV/AIDS, the support from health care workers, the personal support, the financial assistance, the transportation support and the personal relations were much needed within the 3 groups. Vulnerable groups such people living with HIV/AIDS in residential care facilities should be provided with adequate mean of transportation to access to medical treatment and increase the number of designated hospitals in charge of their disease. The lack of clinical counseling/information on HIV/AIDS suggests that more nurses and social workers should be trained and involved in providing counseling/information for HIV/AIDS patients in order to address this issue. NGOs that operate residential care facilities should be provided with substantial resources from the government in order to provide much assistance to PLWHAs in these places. C.D.C Taiwan should continue to strengthen its policy of raising the understanding of the disease among the general public. The fact that most of the patients in prisons never received their CD4 count and viral load before, suggest that the ministry of justice should provide these test in

prisons. Cooperation between both the minister of justice and the department of health will be necessary to accomplish this goal.

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台灣愛滋病病毒感染者之需求評估

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目標：評估及比較北台灣地區在愛滋病特別門診、監獄及中途之家的愛滋病病人需求的內容及差異。**方法：**自2005年12月至2006年6月，自台北市立醫院愛滋病特別門診、桃園監獄、及兩處愛滋病中途之家共收取367名愛滋病病患作為研究之樣本。以SPSS 12版統計軟體進行問卷資料的統計分析。**結果：**結果顯示1/3的受訪者不知道自己的CD4指數(32%)及病毒量(37.8%)。來自健康照顧工作者及一般民眾的支持是受訪者最需要的。中途之家的受訪者最需要經濟上的補助、交通工具、及良好的人際關係，且在生理及精神上特別脆弱。中途之家及監獄內的愛滋病病人傾向於需要更多的精神上的支持及社會服務的協助。受訪者基本存活的重要因素包括有營養、雞尾酒療法、運動、家人的照顧及同儕的支持。工作對中途之家的病人似乎格外重要。**結論：**本研究結果顯示應提供更多的諮商及相關訊息給這些病患。事實上監獄中的愛滋病病人從未接受CD4計數及病毒含量測試，建議監獄裏應該提供這類檢查。(台灣衛誌 2007；26(1)：38-48)

關鍵詞：需求、評估、愛滋病病人、台灣、中途之家

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