Determinants of quality of life in HIV-infected Chinese patients

Ho CF, Wong HY, Wong KH, Chen CN, Cheng SK, Fong OW, Tse WH, Yuen CY, Wong PS, Lam WL
Integrated Treatment Centre, Centre for Health Protection, Department of Health, Hong Kong SAR, China

Background
Highly Active Antiretroviral Therapy has revolutionized the management of human immunodeficiency virus (HIV) and prolongs the life-span of HIV-infected patients. The promotion of psychosocial well-being among HIV infected patients is essential as the disease becomes chronic and manageable. This study aims at identifying the determinants on quality of life (QoL) of HIV-infected Chinese in Hong Kong.

Methods
From December 2002 to September 2004, all Chinese patients of Integrated Treatment Centre were invited to fill in a WHOQOL-BREF (Hong Kong) questionnaire, which measures four domains - physical, psychological, social and environment. The overall QoL scores of participants in each domain were calculated. For each domain, participants with low score (below 25 percentile) was compared with participants with high score (above 75 percentile) regarding demographic, psychosocial, and HIV disease characteristics by using Logistic Regression Models.

Results
A total of 661 patients were invited to join the study and 64 refused. The participation rate was 90%. The demographic and clinical characteristics of 597 Chinese participants are shown in Table 1.
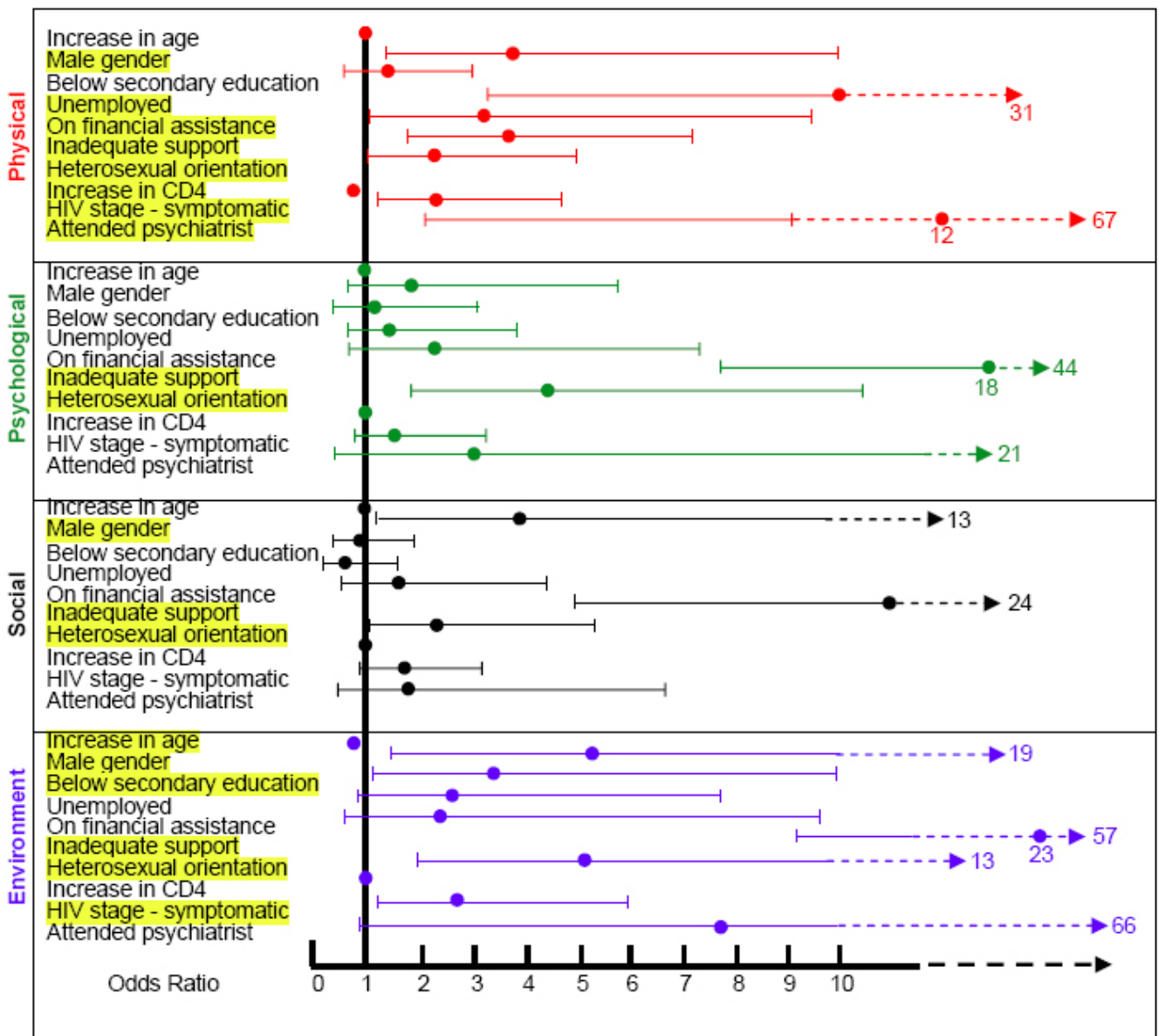
Table 1 Characteristics of participant

Total participants = 597	N	(%)
Age in years (mean ; SD)	40	± 10
Male sex	525	(88%)
Tertiary or above education	96	(16%)
Unemployed	128	(21%)
On financial assistance	72	(12%)
With adequate social support	188	(32%)
Homosexual or Bisexual	202	(34%)
Months of Diagnosis (median; range)	28;	1-184
CD4 (median; range)	325;	4-1239
Disease stage – symptomatic[§]	338	(57%)
Attended Psychiatrist	36	(6%)

[§]The HIV disease stage classification was based on the practice in Hong Kong
(Scientific Committee on AIDS. Classification system for HIV infection and surveillance case definition for AIDS in adolescents and adults in Hong Kong. Hong Kong: Hong Kong Government Printer, 1995.)

In the univariate Logistic Regression analysis, it was found that heterosexual men had a greater odds of rating a below 25 percentile QoL scores than the homosexual or bisexual men (The odds ratio [95% confidence intervals] in physical, psychological, social and environment domains: 2.8 [1.6-4.9], 5.1 [2.8-9.3], 3.1 [1.7-5.6] and 4.3 [2.4-7.9] respectively).

Figure 1 presented the findings in multivariate Logistic Regression analysis. After adjusted for gender and sexual orientation, 'inadequate social support' is the sole predictor for the low QoL score across all four domains (adjusted odds ratio [95% confidence intervals]: 3.7 [1.9-7.4], 18.5 [7.8-44.0], 11.0 [5.0-24.3], 22.9 [9.3-56.7]).

Figure 1 Adjusted Odds Ratios of low scores predictors – predicting the below 25 percentile QoL scores for physical, psychological, social & environment domains of WHOQOL_BREF (HK version)

Advanced disease stage and CD4 cell count were not associated with the rating of low QoL scores in the psychological and social domains but only having association in the physical domain.

Conclusions
These results suggest that socio-demographic factors rather than physical factors impinge on the perception of QoL among HIV-infected patients.

There is a need to enhance the social support for patients and involve medical social workers in HIV care is essential. The contemporary move for better care should highlight the importance of multidisciplinary approach.