



Variables Predicting Anxiety and Depression among Persons Living with HIV

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Annual Canadian Conference on HIV/AIDS Research
Québec City, 2006

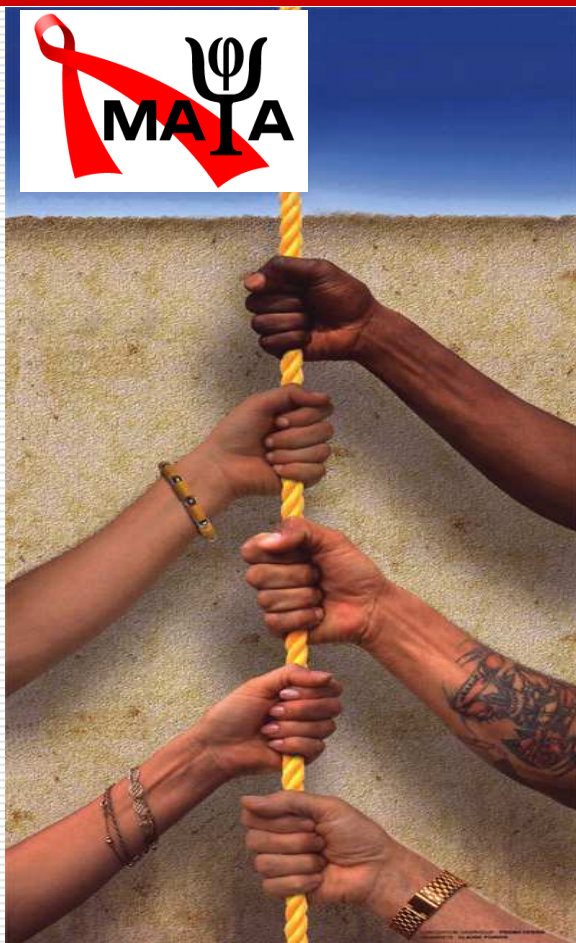
Study Funded by the Canadian
Institute of Health Research (CIHR)
Grant no : HHP-64511



CIHR IRSC



Objective



- To identify variables predicting anxiety and depression among persons living with HIV
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Methodology

- MAΨA is a longitudinal study, started in November 2004
 - Recruitment is done through the 11 collaborating clinical sites and with the help of community groups
 - Participants are met every 6 months (T_0, T_1, T_2, T_3)
 - Data are coming from the first visit (T_0)
 - Questionnaire administered through a face-to-face interview
 - Sample : 842 participants
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Methodology

Variables



- ❑ **Sociodemographic characteristics**
 - age, gender, sexual orientation, education, working, annual income
 - ❑ **Illness and treatment characteristics**
 - Length of time they had been aware they were seropositive, number of years on antiretroviral therapy
 - ❑ **Anxiety and Depression**
 - Hospital Anxiety and Depression Scale (HADS) (Zigmond & Snaith, 1983).
 - Brief self-report scale, 14 items, bifactorial structure
 - The questionnaire does not include any somatic items
 - ❑ **Coping strategies**
 - Brief COPE inventory (Carver et al., 1989, 1997)
 - 28 items, which measure 14 conceptually differentiable coping reactions
 - ❑ **Analysis**
 - Multiple linear regression
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Methodology

Sample Characteristics (n=842)

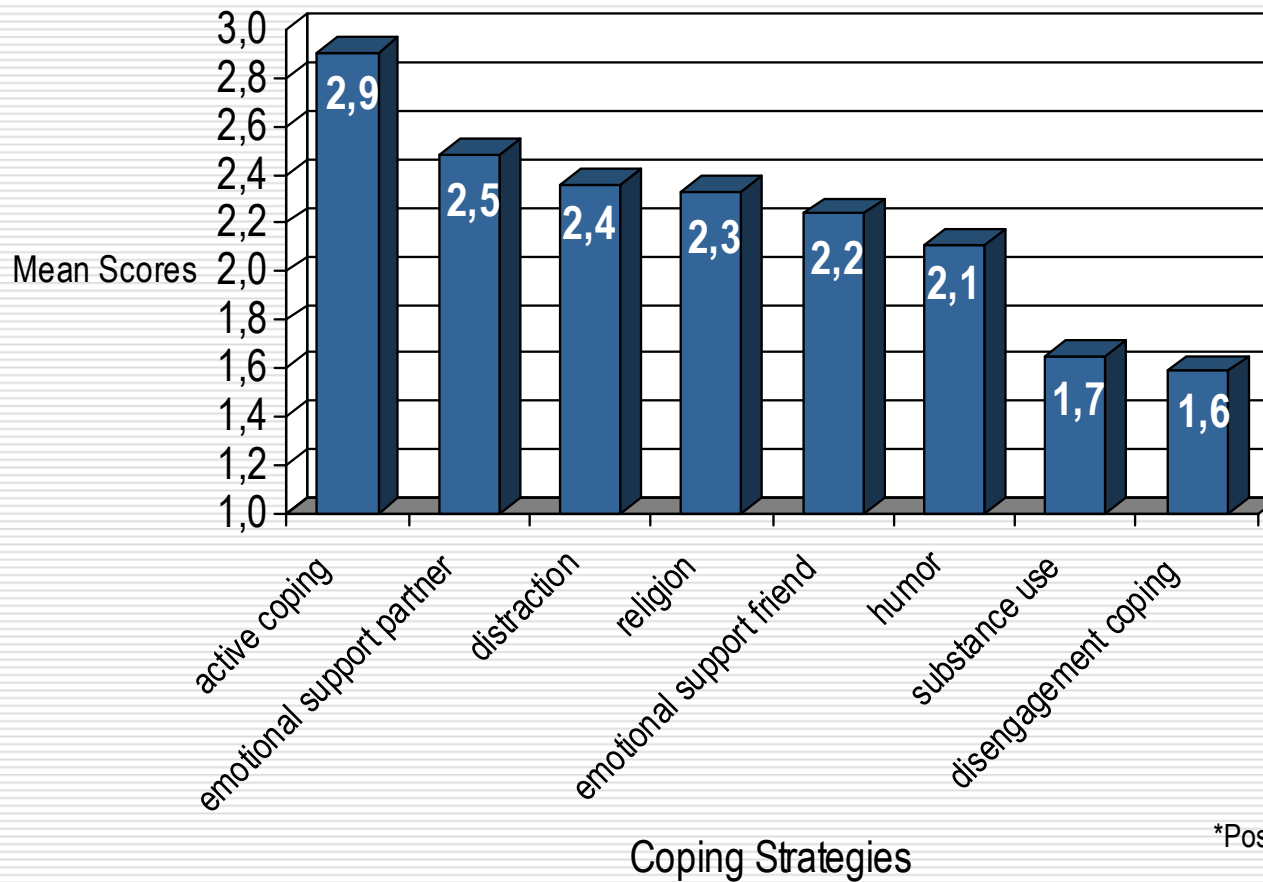


Variable		Categories	Total (n= 842)
Age (years)	(M)		44.1
Gender	(%)	Men	81.1 (683)
	(%)	Women	18.9 (159)
Sexual orientation	(%)	Gay/Homosexual	60.2 (506)
Country	(%)	Canada	79.6 (670)
	(%)	Others	20.4 (172)
Education	(%)	≤ High School	48.6 (396)
Working	(%)	Yes	39 (328)
Annual Income	(%)	<15 000\$	51.9 (419)
Drug users	(%)	Yes	14.1 (119)
Having child	(%)	Yes	31.2
Life span with treatment	(M)		6.4
Life span with illness	(M)		9.76

(M) = Mean

Results

Repertoire of Coping Strategies: Mean Scores (n=842)

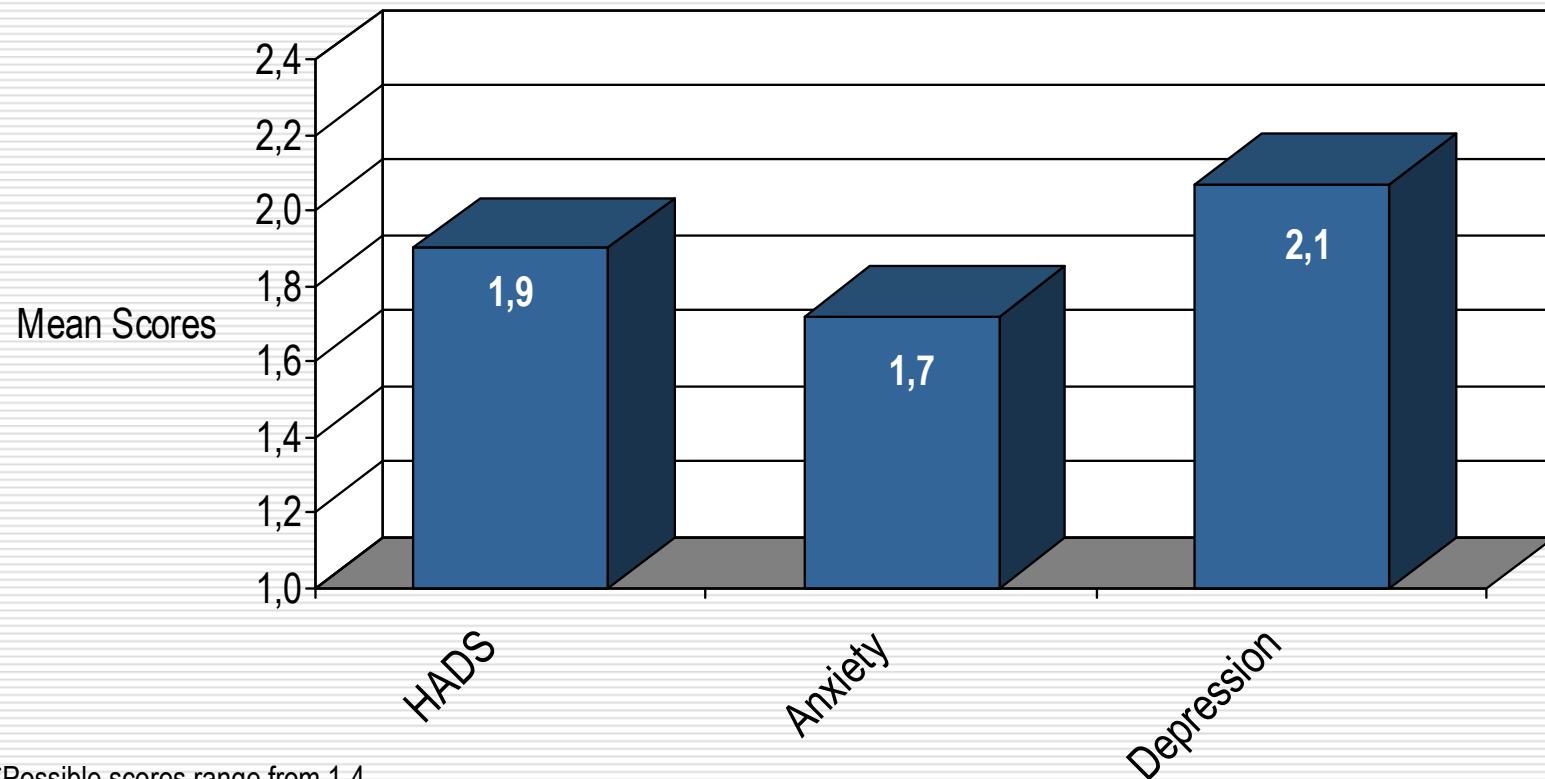


*Possible scores range from 1-4

Results



Mean Scores on Anxiety, Depression and Total Scale (n=842)



*Possible scores range from 1-4

Results

Predictors of Anxiety and Depression Total Scale



Variables	b(SE)	β	p
Life span with illness	0,01(0,004)	0,11	0,006
Life span with treatment	-0,01(0,005)	-0,12	0,003
Disengagement coping	0,43(0,03)	0,41	0,0001
Substance use as coping	0,16(0,02)	0,26	0,0001

$R^2_a = 0,316; p \leq 0,0001$

b = Unstandardized regression coefficient

SE = Standard Error

β = Standardized regression coefficient

R^2_a = Adjusted R^2

Variables integrated in the model but not significant:

- Gender, age, sexual orientation, country of origin

Results

Predictors of Depression



Variables	b(SE)	β	p
Life span with illness	0,01(0,004)	0,1	0,02
Life span with treatment	-0,01(0,005)	-0,09	0,03
Disengagement coping	0,43(0,04)	0,39	0,0001
Substance use as coping	0,13(0,02)	0,21	0,0001
Active coping	-0,09 (0,03)	-0.1	0,002

$R^2_a = 0,297; p \leq 0,0001$

b = Unstandardized regression coefficient

SE = Standard Error

β = Standardized regression coefficient

R^2_a = Adjusted R^2

Variables integrated in the model but not significant: gender, age, sexual orientation, country of origin

Results

Predictors of Anxiety



Variables	b(SE)	β	p
Life span with illness	0,01(0,005)	0,1	0,02
Life span with treatment	-0,02(0,006)	-0,1	0,002
Age	-0,08(0,04)	-0,06	0,08
Disengagement coping	0,39(0,04)	0,33	0,0001
Coping humor	0,04(0,02)	0,06	0,05
Substance use as coping	0,17(0,02)	0,25	0,0001
Distraction coping	0,10(0,03)	0,12	0,0001

$R^2_a = 0,263$; $p \leq 0,0001$

b = Unstandardized regression coefficient

SE = Standard Error

β = Standardized regression coefficient

R^2_a = Adjusted R^2

Variables integrated in the model but not significant: gender, sexual orientation, country of origin



Portrait of the Cohort

Characteristics of illness

- On average, the participants had been seropositive for 10 years and had been receiving treatment for 6 years

Anxiety and Depression

- Participants had moderate levels of anxiety and depression

Coping Strategies

- Participants used a varied repertoire of coping strategies to adjust to their situation
 - The strategies most often used were Active Coping, Support from Partner, Distraction, Religion, Support from Friends and Humor
 - Coping strategies less often used were Substance Use, and Disengagement Coping
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Discussion

Anxiety and Depression Model

- Anxiety and depression total score were predicted by coping disengagement, substance use as coping, length of time from onset of the HIV infection and life span with antiretroviral therapy (negatively)

Anxiety Model

- Anxiety was predicted by coping disengagement, coping distraction, using substance and humor as coping strategy, age (negatively), and life span with illness and treatment (negatively)

Depression Model

- Depression was predicted by coping disengagement, substance use, active coping (negatively) and life span with illness and treatment (-)
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Discussion

- **Value of coping strategies in explaining mental health**
 - Anxiety and depression were associated with coping disengagement and substance use as coping strategy. In agreement with Vosvick (et al., 2002)...who have shown that, rather than denial strategies, it was strategies of disengagement, such as drug use and self-distraction, that were associated with poorer quality of life
 - Depression was negatively associated with active coping. Emphasis of the role of active coping in process of adjustment (Burgess et al., 2000; Weaver et al., 2004)

 - **Anxiety and depression were negatively associated with the duration of the antiretroviral therapy**
 - Recent study by Mannheimer and colleagues (2005) indicated significant improvements in quality of life after one to four months of treatment with antiretroviral therapy, and that this persisted at 12 months
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Conclusion

- Taking into account the role of coping in explaining anxiety and depression, it is essential that the interventions delivered should provide the persons living with HIV with the means of managing difficult situations
 - Population living with HIV for a long period of time is vulnerable and “fragile”. Although, they are no longer confronted with a rapid and fatal prognosis, they have to cope with living with chronic condition
 - Living with HIV is still a constant challenge
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MAYA Study Group

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