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# Interrelations Between Lipodystrophy and Body Image Among Men Living With HIV: An Exploratory Study

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# Context

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- Although highly active antiretroviral therapy (HAART) contributes to improve lifespan and health of people living with HIV (PLWHIV), it also contributes to other forms of morbidity associated with the toxic or secondary effects of such medication (Bonfanti & al. 2000 ; Collins & coll, 2000 ; Kotler & al., 2000 ; Mallal & al., 2000 ; Rourke & al., 2001(a); Rourke & al., 2001(b); Saint-Marc & al., 2000; Thiebault & al., 2000; Tsiodras & al., 2000)
  - Within many studies where lipodystrophy is self-assessed by participants, prevalence varies between 12% and 64.3% (F.R.A.M, 2005; Dreezen & al., 2002; Santos & al., 2005)
  - Studies on the psychosocial dimensions of lipodystrophy highlight its consequences on sexuality, more precisely on body image, self-esteem as well as on the relationship with a partner (Power & al., 2003; Corless & al., 2004 ; Collins & al., 2000; Dukers & al., 2001)
  - These elements are less assessed among men than among women
  - With respect to body image, men who have sex with men (MSM) experience greater dissatisfactions towards their bodies than heterosexual men (Morisson & al., 2004)
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# Objectives



- To describe the experience of lipodystrophy of men living with HIV from the greater Montreal area
- To describe the perceived body image of men living with HIV
- To explore the associations between lipodystrophy and perceived body image



# Methodology

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- MAΨA is an ongoing longitudinal study, which began in November 2004
  - Recruitment was undertaken through the 11 collaborating clinical sites and with the help of community groups
  - Researchers met with participants at 6-month intervals ( $T_0$ ,  $T_1$ ,  $T_2$ ,  $T_3$ )
  - Data for the current study were obtained during the 2<sup>nd</sup> visit ( $T_1$ )
    - Questionnaire administered through a face-to-face interview
  - Sample obtained at the end of April 2006
    - 530 participants, of which 432 are men
  - Only men who ever took HAART were selected for this study : **n= 391**
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# Methodology

## Variables and Analyses



- ❑ **Sociodemographic characteristics**
  - Age, Sexual Orientation, Education, Employment, Annual Income, Currently in a Relationship
- ❑ **Ever having taken Highly Active Antiretroviral Therapy (HAART)**
  - Lifespan Since the First HAART Regimen
- ❑ **Lipodystrophy**
  - Self-reported body changes on at least one of the following body parts (yes/no):  
Eyes, Cheeks, Buffalo Hump, Neck, Breast, Arms, Abdomen, Buttocks, Thighs, Calves
- ❑ **WHO-QoL HIV (World Health Organization Quality of Life for HIV, 2000)**
  - WHO-QoL HIV global measure; 9 items;  $\alpha = 0.89$
  - Scale varying from (1) « negative perception » to (5) « positive perception »
  - A higher score means a more positive evaluation of body image
- ❑ **Analysis**
  - Bivariate Analyses: Student's *t* Tests, Pearson's Chi-Squares
  - Multivariate Analysis: Multiple linear regression

# Results



Table 1: Sample Characteristics (n=391)

<b>Variables</b>	<b>Categories</b>	<b>Total (n= 391)</b>
<b>Age (years)</b>	(M)	46.5 ( $\pm$ 8.9)
<b>Sexual Orientation</b>	(%)	
	Heterosexual	27.7
	Gay/Homosexual	67.6
	Bisexual	4.4
	Other	0.3
<b>Education</b>	(%)	
	$\leq$ High School	47.3
<b>Employment</b>	(%)	
	Yes	38.3
<b>Annual Income</b>	(%)	
	$\geq$ 15 000\$	45.2
<b>Currently in Relationship</b>	(%)	
	Yes	29.9
<b>Reporting Body Changes Since HAART</b>	(%)	
	Yes	64.8

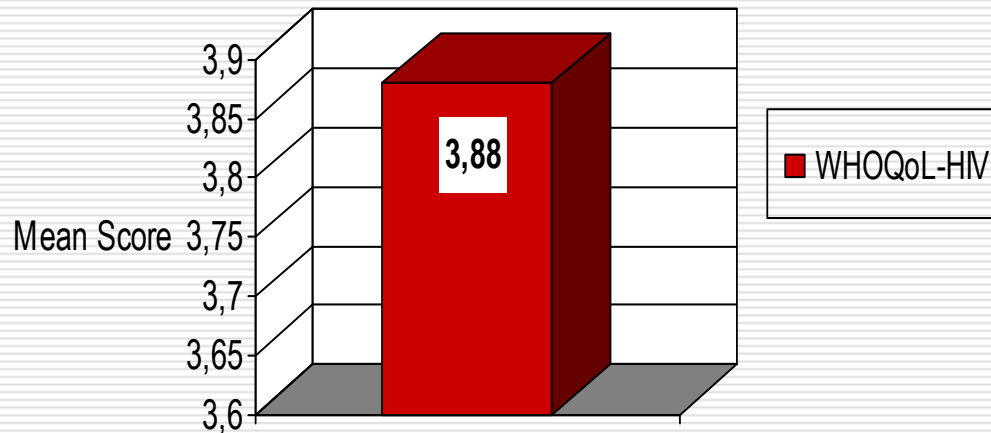
(M) = Mean

# Results

Figure 1: Perceived Body Image (n= 391)



Mean Score on WHOQoL-HIV Scale



**Figure 1 :** In general, participants reported having good perception of their body image.



**Figure 2:** The prevalence of lipodystrophy (65,0%) within the sample is similar to the prevalence obtained in studies where lipodystrophy was self-reported. The body parts most frequently identified by participants as presenting changes (Cheeks, Buttocks, Thighs, Abdomen and Arms) coincided with the body parts most frequently mentioned in the reviewed studies.

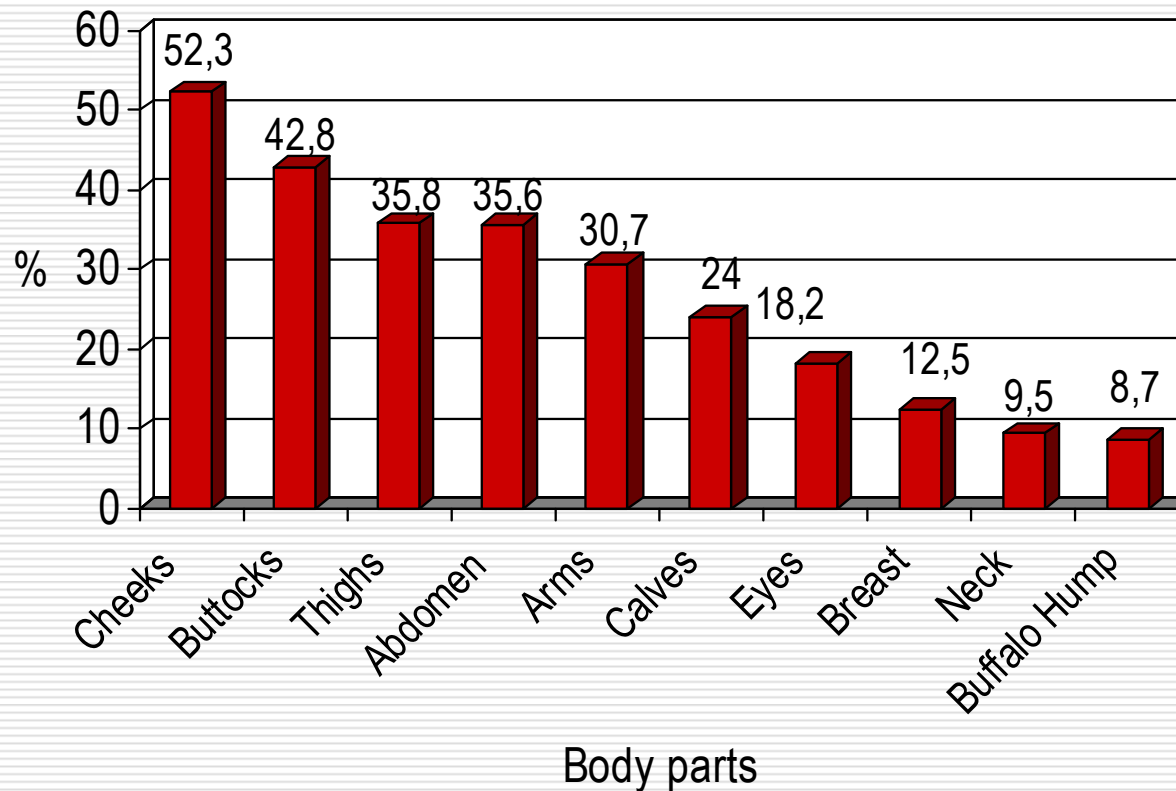


# Results

Figure 2: Self-Reported Prevalence of Changes in Body Parts Related to Lipodystrophy (n=391)



Self-Reported Prevalence of Changes in Body Parts by the Participants



# Results



Table 2: Associations Between Body Image and Demographic Variables (n=391)

Variables	Body Image <sup>1</sup>	
	Mean	p
<b>Sexual Orientation</b>		
Heterosexual	3.94	ns
MSM <sup>2</sup>	3.86	
<b>Education</b>		
≤ High School	4.01	0.02
> High School	3.81	
<b>Employment</b>		
No	3.79	0.007
Yes	4.03	
<b>Annual Income</b>		
< 15 000\$	3.82	ns
≥ 15 000\$	3.94	
<b>Currently in Relationship</b>		
No	3.86	ns
Yes	3.92	

- A more positive perceived body image was found to be associated with:
  - Education level ≤ High School
  - Being employed
  
- No differences in body image were found for the following variables:
  - Age:  
(r= 0.01; ns)
  - Lifespan since the first HAART:  
(r=-0.03; ns)
  - Sexual Orientation, Annual Income, Currently in Relationship (see Table 2)

<sup>1</sup> Scale varying from (1) « negative perception » to (5) « positive perception »

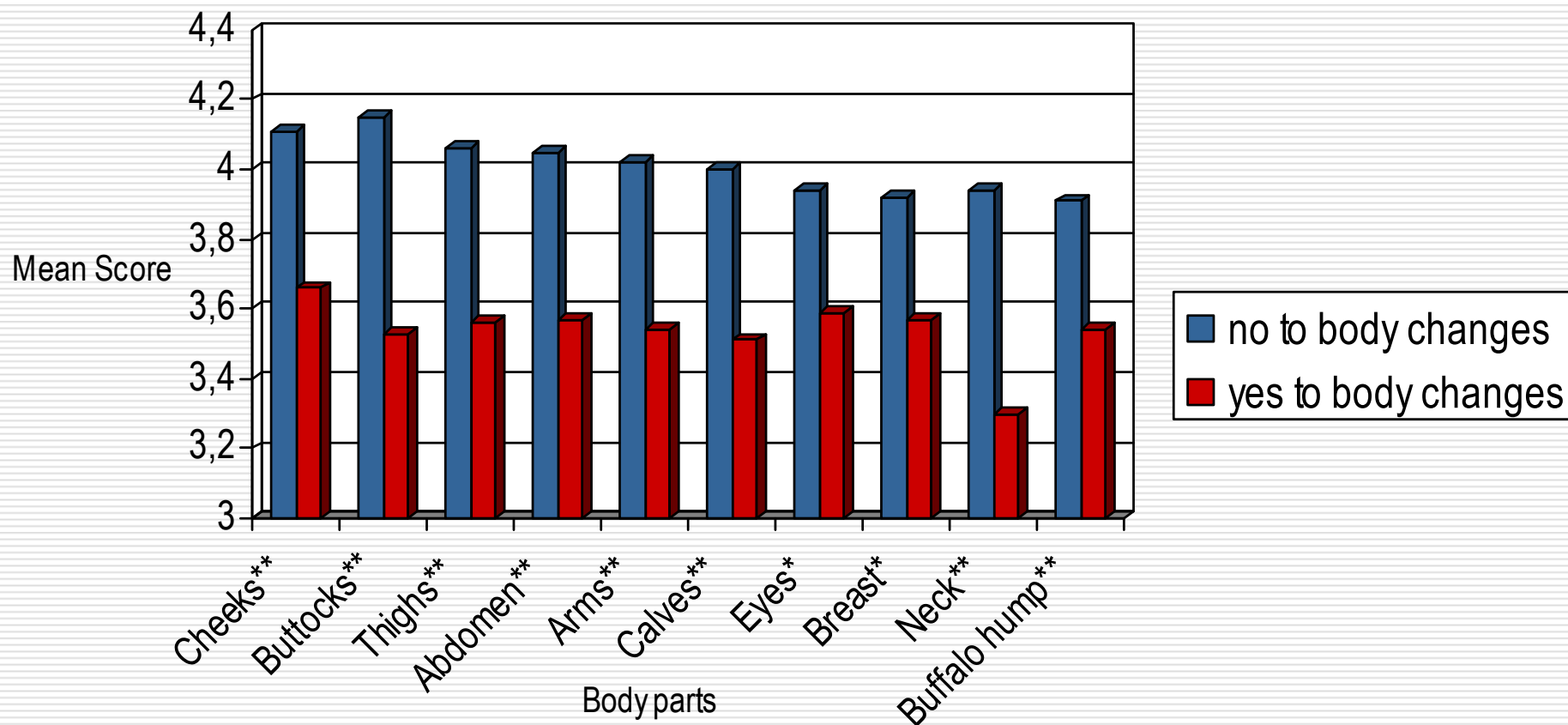
<sup>2</sup> MSM = men who have sex with men

# Results

Figure 3: Experience with Lipodystrophy and Perceived Body Image (n= 391)



## WHO QoL-HIV global scale



\*  $p \leq 0.01$  \*\*  $p \leq 0.0001$



# Results

Table 3: Factors Predicting Perceived Body Image (WHO-QoL-HIV)

Variables	b(SE)	$\beta$	p
Changes on buttocks	-0.52(0.09)	-0.31	0.0001
Changes on abdomen	-0.23(0.10)	-0.13	0.02
Changes on neck	-0.38(0.15)	-0.13	0.01
Age	0.11(0.01)	0.12	0.02

$R^2_a = 0,18$ ; dl 4;  $p \leq 0,0001$

b = Unstandardized regression coefficient

SE = Standard Error

$\beta$  = Standardized regression coefficient

$R^2_a$  = Adjusted  $R^2$

**Variables included in the model which were found to have non significant associations:**

Sexual Orientation, Annual Income, Employment, Education, Lifespan with HIV, Currently in a Relationship, Body Changes: Cheeks, Breast, Buffalo Hump, Buttocks , Thighs , Calves



# Discussion

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## Lipodystrophy and Body Image

- Contrary to what has been observed in other studies, in the present study, bivariate analyses showed no association between body image and:
    - Sexual Orientation,
    - Being Currently in a Relationship,
    - Lifespan Since First HAART,
    - Age of participants
  - Conversely, observing bodily changes associated with lipodystrophy was found to negatively influence the perceived body image of men living with HIV.
  - Multivariate analysis indicated that not experiencing bodily changes on the buttocks, the abdomen and the neck, as well as being older, all predicted a more positive perceived body image.
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# Future perspectives

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## □ Sexological interventions

- These findings indicate the negative influence lipodystrophy may have on the perceived body image of men living with HIV
  - The following aspects should be considered for future sexological interventions:
    - The importance of deconstructing cognitive distortions associated with body image, and readjusting these perceptions of bodily changes
    - Implement interventions aiming to promote a sense of well-being within their bodies
      - Emphasize appreciated body parts
      - Provide them with techniques which will help them adjust to these bodily changes that are deemed unappealing (for example, how to use make-up or how to choose flattering clothing)
    - Question and deconstruct current beauty standards by demonstrating their cultural relativity and that such beauty standards are time and culture - dependant
    - Help men living with HIV realize that the body can be sensual, sexual and desirable regardless of its appearance and that despite such bodily changes, an individual has the possibility to fully fulfill themselves in terms of their sexuality
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# MAΨA Study Group

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