

Cardiovascular Disease among Bear-identified Gay, Bisexual, and other Men who have Sex with Men (gbMSM) in Vancouver: Notice to Family Doctors

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Introduction

“Bears” are a self-identified subculture of gay and bisexual men typically characterized as heavier and hairier than normative male ideals. For many, this identity provides important social and sexual connections; however, large body mass may impart adverse health risks. We investigated how Bear identity may be associated with cardiovascular disease (CVD) among a sample of gbMSM living in Vancouver.

Methods

From 02/2012-02/2015, we used respondent-driven sampling (RDS) to recruit gbMSM aged ≥16 years. In 03/2015 we added questions regarding subculture identification. Participants also completed a nurse assessment of body mass index (BMI) and medical history including CVD (coronary artery disease/angina, congestive heart failure, stroke) or CVD risk factors (hypertension, hyperlipidemia). Logistic regression was used to determine factors associated with CVD/CVD risk factors among our four groups: Bears with BMI ≥30, Bears with BMI <30, non-Bears with BMI ≥30 and non-Bears with BMI <30. Analyses are RDS-adjusted.

Results

Of 541 participants who completed the subculture identity questions, 161 (29.8%) identified as “Bears”. 29.2% of Bears reported CVD compared with 14.2% of non-Bears (p<0.001). In multivariable analysis, CVD/CVD risk factors were more likely among gbMSM who were ≥40 years, daily smokers, taking prescription medications, living in greater Vancouver (vs. downtown), earning ≥\$60,000 vs. <\$30,000, and some pre-existing medical conditions. CVD/CVD risk factors were also more likely among all gbMSM with BMI ≥30; but we did not identify significant differences when stratified by bear identity. HIV-seropositivity was not associated with CVD in multivariate analysis (Table).

Discussion

Individuals with BMI≥30 were more likely to be diagnosed with CVD or have risks factors for CVD and bear-identified individuals were more likely to have high BMI. Bears with high BMI may be especially at risk for CVD. Family doctors should be aware that gbMSM patients who identify as Bears, especially those with high BMI, may be reluctant to lose weight. Alternative management strategies should be considered.

Table

Likelihood of CVD or CVD risk factors among gbMSM.

		Univariable		Multivariable	
N=541	N (RDS%)	OR	95%CI	aOR	95%CI
Bear and BMI category					
Bear BMI ≥30	48 (8.1)	Ref		Ref	
Bear BMI <30	113 (20.9)	0.45	0.21, 0.97	0.37	0.13, 1.05
non-Bear BMI ≥30	19 (2.5)	1.43	0.42, 4.83	3.95	0.85, 18.47
non-Bear BMI <30	361 (66.7)	0.25	0.13, 0.48	0.28	0.11, 0.69
Age					
<40 years	322 (57.4)	Ref			
≥40 years	219 (42.6)	6.72	4.15, 10.88	6.21	3.38, 11.40
Neighbourhood					
Downtown Vancouver	270 (52.8)	Ref		Ref	
Elsewhere Vancouver	166 (26.1)	0.38	0.21, 0.71	0.71	0.33, 1.53
Greater Vancouver	105 (21.2)	1.44	0.89, 2.35	3.27	1.69, 6.34
Income					
<\$30,000	320 (65.4)	Ref		Ref	
\$30,000-\$59,999	151 (23.7)	1.03	0.61, 1.74	1.28	0.66, 2.47
≥\$60,000	70 (10.9)	3.80	2.13, 6.78	5.36	2.54, 11.32
HIV Status					
HIV-negative	380 (69.7)	Ref		Not selected	
HIV-positive	161 (30.3)	1.68	1.09, 2.59		
Takes Rx Medication	179 (31.2)	2.21	1.44, 3.39	2.10	1.18, 3.74
Daily Smoker	114 (21.4)	1.43	0.89, 2.31	2.03	1.11, 3.71
History of:					
Diabetes	15 (3.2)	16.38	4.95, 54.18	6.17	1.27, 29.04
Chronic kidney disease	4 (1.7)	12.09	2.68, 54.55	21.61	3.76, 124.31
Stomach ulcers	24 (5.1)	3.13	1.42, 6.88	5.23	1.86, 14.68
Enlarged prostate	13 (2.4)	4.68	1.52, 14.44	4.99	1.22, 20.49
Cancer	27 (3.5)	3.53	1.40, 8.92	Not selected	
Hepatitis C	41 (9.1)	1.44	0.73, 2.82	Not selected	