The 'Lavender Lens?':A Cross-Cohort Comparison of Variations in Weight Perception by Sexual Orientation

Rationale and Theoretical Basis

Several studies suggest that heterosexual and lesbian women differ in their view of their bodies. For instance, a meta-analytic review of 27 studies conducted by Morrison and colleagues (2004) suggests that lesbians are more satisfied with their bodies compared to heterosexual women. It may be that lesbian women are less aware of or less concerned with being overweight due to their membership in a subculture that is more accepting of heavier bodies (Herzog et al., 1992). Simply put, lesbians may view their bodies through a different lens than heterosexual women.

Though there is evidence that lesbians and heterosexual women differ in body satisfaction and weight perception, there is also evidence pointing to the contrary. In a recent article published in *Archives of Sexual Behavior* Peplau and her collaborators (2009) find little evidence for the idea that lesbians have a higher level of body satisfaction than heterosexual women. There is little consensus, then, as to whether lesbians differ from their heterosexual counterparts with regards to perception of weight and body satisfaction.

It is possible that the conflicting findings cited above are due to treating lesbian and heterosexual women as a homogenous group. In a collection of essays edited by Bernstein and Silberman (1996), several sexual minorities who were born close to the time of the Stonewall Riots of 1969 share their stories and describe how their experiences differ from those of older gay and lesbian community members. The essays in Bernstein and Silberman's volume are consistent with the life course principles that both historical context and timing are important for shaping life outcomes (Elder, 1998). The Stonewall Riots were not the only turbulent event that occurred in the late 60'sAattitudes and values regarding feminine beauty and thinness changed rapidly around the late 60's and early 70's. Consequently, the year 1969 is a historically significant turning point that may influence cohorts' perceptions of body weight.

The present study uses data from the Multi-Site Women's Health Study (MWHS) to assess differences in weight perception between heterosexual and lesbian women and whether these differences exist for women who come of age before versus after 1969. This study is exploratory in nature, using a community sample of women to further elucidate the intersections between sexual orientation, weight perception, and, ultimately, obesity risk. Further, this study lays a foundation for examining potential differences in health trajectories by sexual orientation. Because of the Institutes of Medicine's 2011 report on health disparities in the LGBT community as well as recent evidence that lesbian women are at greater risk of overweight and obesity than heterosexual women (Bowen et al.,2008) it is of utmost importance to understand the underlying processes leading to the increased overweight and obesity risk among lesbians. Could it be the case that lesbians are more likely to be overweight because they do not perceive themselves as being overweight when they in fact are?

Methods

Data Set

Data for this study comes from the MWHS. Commissioned by the Chicago Lesbian Community Cancer Project (LCCP), this survey was designed to gather data on the health status and health behaviors of sexual minority and heterosexual women. The dataset represents an improvement over many other nationally representative datasets because it specifically targets self-identified lesbians. Several recruitment methods were utilized in order to obtain a diverse sample of women, including distributing the survey at formal and informal settings that cater to sexual minority women and using informal networks of women's friends and co-workers. A total of 829 women were surveyed.

Measures

Self-reported weight perception is my outcome variable. Respondents were asked "Do you consider yourself overweight?" I treated this as a dichotomous variable coded '1' if'Yes' and '0' if 'No.'

Body Mass Index (BMI) serves as the focal predictor variable. BMI was calculated by taking respondents' self-reported height and weight and converting them to BMI. Because the response options

for height and weight are a set of ranges (14lb increments for weight and 2in increments for height), I recoded height and weight to the midpoint prior to converting to BMI. I also include sexual orientation (lesbian women coded 1 and heterosexual women coded 0) in the model as well as an interaction between BMI and sexual orientation in order to test differences between subpopulations. I divide the sample into two cohorts in order to account for potential heterogeneity in age ranges. Women who were aged 14 and younger were included in the cohort that had formative years occurring *after* 1969. Women aged 15 and older were included in the cohort who came of age *prior* to 1969.

I include age, education, and race as statistical control variables.

Analytic Strategy

For the analysis, I exclude women who identify as bisexual in order to provide a clear distinction between women who identify as lesbian versus heterosexual. I also exclude women who are missing on any of the variables included in the model (<10% of sample). I will run separate analyses for each cohort. I estimate a logistic regression model with weight perception regressed on the focal predictor variable, the interaction term, and the statistical controls articulated earlier.

Preliminary Results

Descriptives

Table1 presents descriptive statistics of the outcome variable, and focal predictor variables for my sample stratified by whether they came of age before or after 1969. As the tables indicate, in both age groups, lesbian women have a higher BMI, on average, than heterosexual women. Further, though a higher percentage of heterosexual women perceive themselves as overweight than lesbian women in the post-1969 cohort, the reverse is true for the pre-1969 cohort. Descriptive statistics for the controls (not shown) indicate that, in both age groups, the sample is racially diverse and relatively highly educated.

Multivariate Analysis

Table 2 displays results for women who came of age after 1969. Controlling for race, education, and age (not shown in the model), I find that the interaction term used to test differences between lesbians and heterosexual women on perception of overweight is statistically significant. The significant interaction term indicates that there is a difference between lesbian women and heterosexual women in the likelihood of perceiving themselves as overweight. Figure 1 displays predicted probabilities of being overweight for lesbians and heterosexual women at different levels of BMI. Two vertical lines were drawn at BMI of 25 and 30 to represent overweight status and obese status respectively. As the figure shows, in the normal weight category (BMI<25), heterosexual women are more likely to say that they are overweight than lesbian women are. Another way of saying this is that heterosexual women are more likely to perceive themselves as overweight when they are classified as normal weight by their BMI. The lines, which represent predicted probabilities, converge in the overweight and obese categories suggesting that heterosexual and lesbian women are equally accurate in perceiving themselves as overweight when they are actually overweight. These results run counter to the idea that lesbian women are at an increased risk of being overweight because they are more likely to be unaware of their overweight status. Table 3 shows the results for women in the older cohort. The interaction term between sexual orientation is not significant. Said lack of significance suggests that coming of age after 1969 may have played a role in shaping weight perception differences between heterosexual and lesbian women.

Future Directions

Though I find that heterosexual women are more likely to perceive themselves as overweight than are lesbians and that this is only the case for women who came of age after 1969, it is unclear whether this difference is due to a change in lesbian women over time or in the heterosexual women. Identifying the subpopulation that changed will allow me to argue for the salience of particular events. For instance, if the lesbian women vary before in weight perception before and after 1969, then it can be argued that the Stonewall Riots were a significant turning point. If it is the heterosexual women who changed, it may not be the Stonewall Riots that matter, but some other phenomenon related to shifts in body image for heterosexual women. I will test this by running separate models in which I interact each subpopulation by

cohort. Significant interactions will provide evidence for a change within subgroup over time. Lastly, previously mentioned, this study is exploratory, and the nature of the data makes it impossible to generalize to the entire population. Consequently, over the next couple of months, I will supplement my analyses with the National Health and Nutrition Examination Survey (NHANES), a nationally representative dataset that includes measures of sexual orientation. By including multiple datasets with different strengths (MSWS features a large number of self-identified lesbians; NHANES is nationally representative and includes a moderate number of sexual minority women) I will be able to display a more detailed and representative picture of the intersections between sexual orientation and weight perceptions.

Table 1. Descriptive Statistics of Analytic Sample

	Formative Years After 1969	*Formative Years Before 1969*
	N=341 Mean or Percentage (SD)	*N=406* Mean or Percentage (SD)
Lesbian Women	65	67
BMI	26.03 (4.7)	27.7 (6.2)
Age	34.2 (4.5)	49 (7.50
Perceive themselves as Overweight	55	67
Hetero Women	35	33
BMI	24.93 (5.16)	26.6 (6.5)
Age	32.8 (5.0)	51.3 (8.6)
Perceive themselves as Overweight	59	62

Table 2. Perception of Overweight Status Regressed on Predictors (After 1969)

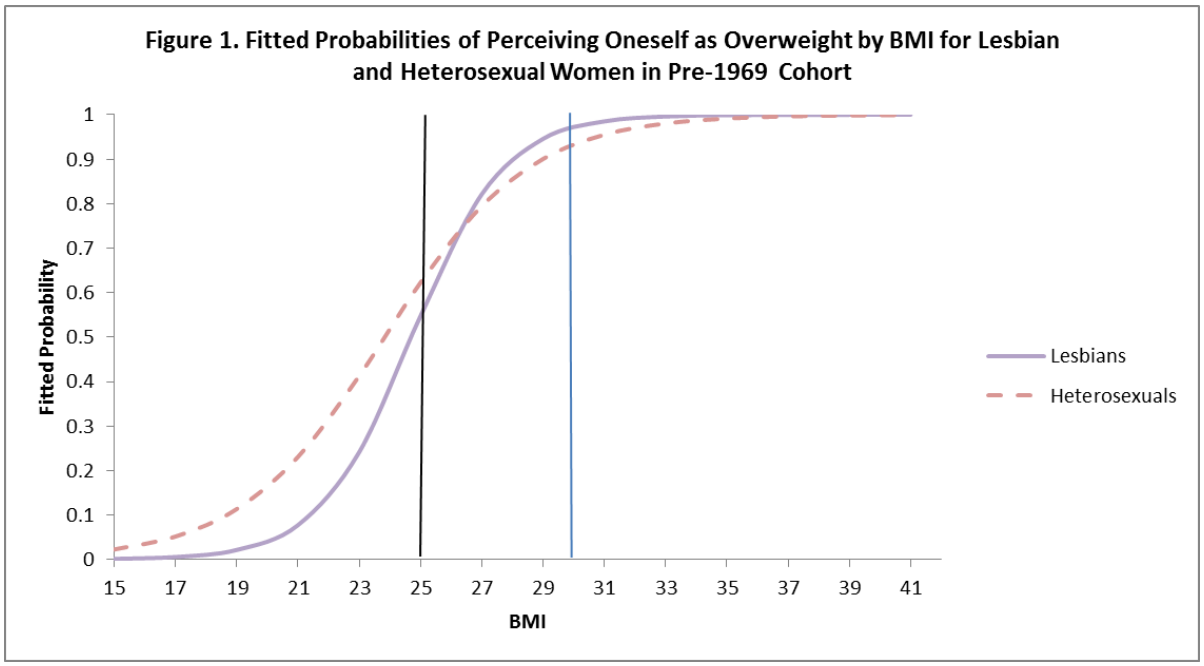
	Model 1	Model 2
BMI	1.661***	1.456***
	[1.48,1.86]	[1.26,1.68]
Lesbian	0.591	0.00191*
	[0.32,1.09]	[0.00,0.31]
S.O. x BMI		**1.274***
		[1.03,1.58]
Observations	341	341

Exponentiated coefficients; 95% confidence intervals in brackets
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 3. Perception of Overweight Status Regressed on Predictors (Before 1969)

	Model 1	Model 2
BMI	1.884***	2.058***
	[1.64,2.16]	[1.60,2.65]
Lesbian	0.727	14.62
	[0.38,1.39]	[0.02,13565.84]
S.O. x BMI		**0.881**
		[0.66,1.17]
Observations	406	406

Exponentiated coefficients; 95% confidence intervals in brackets
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$



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