

Social Identity and Adjustment to UW – Eau Claire: Is the Social Environment to Blame for First Year Weight Gain?

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Objectives

This study investigates how new college student identities (or self-image) as a healthy eater when arriving at college, as well as their experiences in their first semester in college, affect weight gain during that time. Two versions of sociological theories of identity are used to predict the outcomes.

Two major theoretical traditions in Sociology have the concept of identity as a central concern, Identity Theory (IT) and Social Identity Theory (SIT) (Stets and Burke 2000). Both have the assumption that identities are constructed and malleable, built and changing all through life. Both assume certain identities will be more central to the person, or more "salient", and thus have more impact at some times than other identities that are seen as less relevant.

IT would assume that early interaction in the home create the majority of self-perceptions regarding food and eating and health. SIT would posit that membership in any group can be the basis of an identity, thus predicting that experiences on campus with other students will have a powerful effect on self-perceptions regarding food and eating and health.

Hypotheses

- o H1 (IT): The more often a student reports eating together with family growing up, the more salient their "healthy eater" identity will be.
- o H2 (IT): The greater the salience as a "healthy eater" upon arrival at the UWEC, the less the unwanted weight gain in the first semester of college.
- o H3 (IT & SIT): The greater the unwanted weight gained in the first semester of college, the lower the self-esteem.
- o H4 (SIT): The more peers on campus who focus on healthy eating, the less unwanted weight gain in the first semester of college.

Methods

Two online surveys were distributed, one in August and another in December, to randomly selected incoming first year students with approximately 176 respondents and 80 who completed both first and second surveys.

On the first survey, basic demographic information was recorded and it asked questions pertaining to the participant's attitudes and habits about eating in their family, identity as a "healthy eater", and height and weight.

The second survey was similar to the first, but related their eating habits to their experience on campus and the peers that may have an effect on them.

Multiple regression and the change scores from the first to second survey were used to analyze the data.

Survey question wording for variables in analyses in tables:

Breakfast with family = "Last year, how often did you eat breakfast with one or more members of your household?"
Lunch with family = "Last year, how often did you eat lunch with one or more members of your household?"
Dinner with Family = "Last year, how often did you eat dinner with one or more members of your household?"
Family says good things about attempts to eat well = "How often in the last year did a member of your household say good things about your attempts at healthy eating?"
Family encourages bad eating habits = "How often in the last year did a member of your household encourage you to eat unhealthy food?"
Family talks to them about nutrition = "How often in the last year did a member of your household talk about nutrition with you?"
Feels in control of eating habits = "How often do you feel in control of your eating habits?"
Feels they are likely to gain weight in college = "It is normal for students to gain weight during their first year of college."
Change in eating breakfast with family/peers = "Last year/this semester, how often did you eat breakfast with one or more members of your household/students you live with?"
Change in eating lunch with family/peers = "Last year/this semester, how often did you eat lunch with one or more members of your household/students you live with?"
Change in eating dinner with family/peers = "Last year/this semester, how often did you eat dinner with one or more members of your household/students you live with?"
Change in bad eating habits encouraged by family/peers = "How often in the last year did a member of your household/someone you live with encourage you to eat unhealthy food?"
Change in feeling in control of their eating habits = "How often do you feel in control of your eating habits?"
Change in amount of close friends on-campus = "I have close friends on campus."
Change in good things said about attempts to eat healthy by family/peers = "How often in the last year/semester did a member of your household/someone you live with say good things about your attempts at healthy eating?"
Change in identity as healthy eater = "If someone said something bad about people who try to eat healthy food, I would feel they were saying something bad about me."
Change in feeling bad when eating unhealthy food = "When I eat too much unhealthy food, I feel like a bad person."
Change in perception of students on campus like them = "UW – Eau Claire has a lot of people like me."
Change in talking to friends about healthy food = "I talk about healthy food with friends or classmates."
How often they eat alone on-campus = "When you are on campus, how often do you eat alone?"

Participants

- o Of the 80 participants who took both surveys in this study, 18 were male and 62 were female.
- o All participants were traditional first year students; 95% lived on-campus, 3.8% lived off-campus with their family, and 1.3% lived off-campus with other students.

Results

Mean weight change in the sample was 1.8 pounds, with 17.5% reporting gains, 52.5% reporting losses, and 30% reporting no change in weight. The range of changes of weight is from -33 pounds to 17 pounds.

Initial analysis showed no significant relationship between eating with family and identity salience, no significant relationship between identity salience and unwanted weight gain, and no significant relationship between changes in weight and self-esteem. Hypotheses 1-3 appear to lack support. However, additional analysis revealed some connections among the variables of interest.

Table 1 – Models Explaining Changes in Weight Over the First Semester

	MODEL 1	MODEL 2	MODEL 3
Breakfast with family	1.437		
Lunch with family	-.086		
Dinner with Family	-2.989***		-2.073*
Family says good things about attempts to eat well	1.490*		1.140
Family encourages bad eating habits	-.274		
Family talks to them about nutrition	-.358		-.471
Feels in control of eating habits	1.478		
Feels they are likely to gain weight in college	.275		
Change in eating breakfast with family/peers		-1.017	-.909
Change in eating lunch with family/peers		-.262	
Change in eating dinner with family/peers		1.413**	.480
Change in bad eating habits encouraged by family/peers		.852	.838
Change in feeling in control of their eating habits		-2.516**	-2.533**
Change in amount of close friends on-campus		.469	.555
R ²	.226	.285	.339

(Unstandardized regression coefficients are reported in the tables. * = p < .05; ** = p < .01; *** = p < .001)

The models in Table 1 estimate the effects on change in weight over the first semester from a variety of factors.

Model 1 shows the effect of family background variables and health eater identity variables at the start of college and how they are related to change in weight. Eating dinner more with the family of origin had a strong relationship to avoiding weight gain (p < .001). Students who reported more comments from family of origin encouraging good eating actually gained more weight in college (p < .05). This may be because those who have weight issues in high school are more likely to have family who try to encourage weight loss. Overall, Model 1 explains 22.6% of weight changes over the first semester.

Model 2 looks at how students have changed their responses to questions over time, and looks for effects on change in weight coming from those changes as student learn their way around a new environment. Students who eat more dinners with peers in college than they did with family at home gained more weight (p < .01) and students who feel more in control of their eating lost weight (p < .01). Overall, Model 2 explains 28.5% of weight changes over the first semester.

Model 3 combines factors from the first two models. Dinner with family of origin is still significant (p < .05), as is the change in feeling in control of eating (p < .01). Overall, the combined model explains 33.9% of weight changes over the first semester.

Table 2 – Models Explaining Changes in Perception of the Normality of Weight Gain at College

	MODEL 4	MODEL 5	MODEL 6
Change in good things said about attempts to eat healthy by family/peers	-.186		
Change in feeling in control of their eating habits	-.149		-.217
Change in identity as healthy eater	.235*		.210*
Change in feeling bad when eating unhealthy food	-.124		
Change in perception of students on campus like them		.344*	.336*
Change in amount of close friends on campus		.172	.199*
Change in talking to friends about healthy food		.111	
How often they eat alone on-campus		.129	
R ²	.081	.184	.201

(Unstandardized regression coefficients are reported in the tables. * = p < .05; ** = p < .01; *** = p < .001)

The models in Table 2 estimate the effects on change in belief that weight gain is normal in college during the first semester from a variety of factors that also changed over that time period.

Model 4 uses IT based variables and shows that those who increased their identity salience as a healthy eater were more likely to see weight gain as normal (p < .05), and combined with the other identity change variables in the model this explains 8.1% of the changes in belief about weight gain being normal.

Model 5 uses SIT based variables and shows that the more students increase their belief that there are many students like them on campus, the more they think weight gain is normal, and this model explains 18.4% of changes in beliefs about weight gain being normal.

Model 6 is a combined model and shows 3 significant variables. Those who see themselves more as a healthy eater over time are more likely to see weight gain as normal (p < .05), students who increase their belief that there are many students like them on campus are more likely to see weight gain as normal (p < .05), and those who increase the number of close friends they have on campus are more likely to see weight gain as normal (p < .05). This combined model explains 20.1% of the changes in belief about the normality of weight gain in college.

Discussion and Conclusions

Overall, the data suggest that social factors are very powerful in their effect on eating and weight changes in the first semester. IT identities, which are role and action based, seem to have a lesser effect on changes in weight than SIT identities, which are social group based. For example, what family says about eating well has an effect, but loses significance once experiences on campus are factored into the models. Also, those who ate dinner with families of origin more actually had weight loss as shown in Model 2. This may be because they are feeling more isolated than they did at home, a conclusion supported by the fact that those who eat dinner with others on campus more than they did with their families showed weight gain in Model 2. Finally, a strong effect is shown that those who feel more in control of their eating three months into college compared to starting college report weight loss. This would suggest that future research should look into this sense of control, how social interactions on campus can affect it, and how the university might promote messages that increase student perceptions of being in control of their food choices. Given that a powerful effect of feeling in control of eating is shown to protect against weight gain, we suggest that this may protect students from weight gain by some mechanism that allows them to resist social pressure to eat. For example, they might decline an invitation to split a pizza at night instead of going along with the social pressure to conform to the expectations of others. This fits with the finding that an increase in healthy eater identity salience are more likely to see weight gain as normal; they feel odd because they are abnormal compared to other students.

The results in Table 2 also show the power of social factors. SIT based variables in Model 2 explain over 10% more of the changes in beliefs about the normality of weight gain in college than IT based Model 1. Given that those who see more people on campus as being like them and those who form more close friendships on campus are significantly more likely to see weight gain as normal, we suggest that this "norm" is strengthened as connections between students increase and social influence that SIT predicts grows stronger.

This research indicates that social factors may be very powerful in protecting against the "Freshman 15". Connecting to others on campus is highly beneficial in terms of student retention, grades, and student satisfaction with the UWEC (Ling and Erger, 2009). However, that connection may also be a source of social pressure to eat, leading to unwanted weight gain. It also leads to an acceptance of gaining weight as being normal. While making policy decisions based on the results of a relatively small sample would be unwise, we do suggest that programs that seek to encourage healthy eating on campus consider addressing social pressures to eat, as well as the tendency of many students to come to accept weight gain as normal or even inevitable over their time in college.

Sources

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