Confronting the Obesity Epidemic at Community Colleges

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For the first time in our history, Americans confront the possibility that the life expectancy of future generations will decrease, a chilling prospect foreshadowed by epidemic levels of obesity. Over the last two decades, the rate of obesity has doubled among adults (from 15% to 34%); among children and adolescents, the rate has more than tripled (from 5% to 17%) (White House). Equally alarming is the disproportionate impact of obesity upon women, African-Americans, Latinos, and the poor (Ogden, et al.). These astonishing disparities in the prevalence of obesity should center attention on at-risk populations of students who traditionally choose to study at community colleges. At LaGuardia, we, along with our community college counterparts around the country, may well be at the epicenter of a health crisis.

In 2009, 18.1 million students worked toward an undergraduate degree at an American college or university; millions more participated in non-degree educational programs (Knapp, Kelly-Reid, and Ginder 9). Within the 18–24 age group, over one third (39%) attends college (US. Natl. Center for Educ. Statistics). For these individuals, the transition to adulthood is a period of dramatic change, a stage when they develop lasting attitudes and behaviors. While building greater independence and new interpersonal support systems, young adults are also establishing patterns of eating behavior and physical activity (Nelson et al.). But for many students the health picture is not bright. A national survey undertaken in 2008 by the American College Health Association reveals that almost one-third (31.9%) of college students report being either overweight (21.9%) or obese (10%) ("American" 482).

In the nationwide effort to reduce the scope and impact of the obesity epidemic, colleges should be essential partners with government and community agencies now facing the challenge of high obesity rates. Public officials, most visibly New York City Mayor Michael Bloomberg and First Lady Michelle Obama, are advancing robust policy propos-

als to promote healthy eating and increased exercise. Philanthropic organizations and government agencies are providing greater funding for research and prevention efforts. Community organizations, schools and employers are responding by establishing an array of programs to encourage healthy eating and exercise. Yet these efforts are not reaching the students most in need. Of the 106 campuses that self-selected to participate in the American College Health (ACH) survey, 101 were four-year institutions. Clearly, the absence of two-year colleges from the ACH survey and other college-based research limits its usefulness in fully understanding the experience, causes, and consequences of obesity for community college students.

This paper explores the effects of the obesity epidemic upon those who attend and work at community colleges, reviews research on obesity conducted mostly at four-year educational institutions, and offers excerpts from interviews with present and past LaGuardia students who share their attitudes toward obesity. Concluding recommendations offer directions to take in preventing obesity among high risk populations at two year colleges.

Physical, Psychological, and Economic Impacts of Obesity

The increase in life expectancy in America, a constant throughout the 20th century, may be reversed by the vast number of those who suffer the debilitating effects of obesity (Olshansky et al.). Health complications and preventable illness associated with the disease include Type II diabetes, cardiovascular ailments, respiratory problems, pregnancy complications, psychological disorders and specific types of cancer (US. Public Health Service). The second cause of premature death after tobacco, obesity results in an estimated 325,000 early deaths (Allison et al.).

Overweight individuals also report a significantly lower health-related quality of life, with greater negative perceptions of their own physical and social functioning, vitality, and mental health (Jia and Lubetkin). Obesity is associated with significant increases in lifetime risk of psychiatric illness, including depression and anxiety disorders (Simon et al.). Also widely reported are stigma and bias against obese people, many of whom face discrimination when applying for employment, earn less than slimmer individuals doing the same jobs, and confront discrimination in school and health care settings (Puhl and Heuer). Overweight and obesity are linked to poorer school perfor-

mance among children and adolescents. Studies investigating obesity and school performance showed a consistent negative association between obesity and academic performance among children and adolescents (Taras and Potts-Datema).

Obesity also takes a financial toll on individuals, health care payers, and employers. First, obese persons are less wealthy than those of average weight (Zagorsky). Second, per capita medical spending for obesity-related care and treatment is estimated to be 42% higher (an additional $1,429 per year) than for someone of "normal" weight (Finkelstein et al.). Finally, employers shoulder greater costs due to loss of worker productivity, increased absenteeism, and higher disability and workers' compensation costs (Behan et al.).

Obesity on Campus

In 2008, a survey of 1600 students at three City University of New York campuses (Hostos Community College, Hunter College, and Medgar Evers College) found that among the respondents 23% were overweight and 14% were obese (City University of New York). Recent nationwide research examining disparities in college students attending four-year colleges noted higher rates of obesity in men, African Americans, and low income students, and significantly higher rates of overweight and obesity were found among students in their later years of college (T. Nelson et al.).

In 2010, in one of the few studies examining community college students, researchers in Minnesota compared students at two- and four-year colleges for differences in prevalence and risk factors associated with weight gain. The study found a higher prevalence of overweight and obesity among students attending the two-year colleges, with a particularly sharp difference for females. Females at two-year colleges also displayed less healthy behavior than their counterparts at four-year colleges, including lower physical activity levels, higher consumption of unhealthy foods and greater sedentary activity (television viewing). Fewer differences were found between men attending two-year and four-year colleges. Importantly, these disparities were found even when controlling for race, ethnicity, and age (Laska et al.).

Most research into the factors that contribute to obesity among college students has been limited to four-year college students. These limited studies offer insights into the challenges college students face

in maintaining a healthy body weight. For example, in 2003, a survey of college students at a large public university indicated that high rates of overweight and obesity may be associated with poor dietary habits, low levels of physical activity, high levels of stress, and unhealthy habits that included large consumption of junk food and late night snacking (Huang et al.). Other research contradicted the popular belief that students gain a significant amount of weight in their first year (the so-called "Freshmen 15"); instead, the 24 studies reviewed found that an average weight gain of approximately five pounds is closer to reality. Nevertheless, the increase is still troubling as weight gain is likely to continue over time (Vella-Zarb and Elgar).

Obesity and Community Colleges

More than four out of ten undergraduates (7.1 million students) attend one of the nation's 1,103 two-year colleges (US. Natl. Center for Educ. Statistics). Likely to be older, female, poorer, African-American or Hispanic, these students work full-time and attend college part-time (US. Natl. Center for Educ. Statistics). The disparities in obesity rates based on age, gender, race or ethnic group and socioeconomic status noted for the general population suggest that obesity rates for students attending two-year colleges are higher than for those attending 4-year colleges.

If researchers agree that dietary behavior and physical activity are critical factors associated with student obesity, this consensus has not generated an in-depth examination of the prevalence, risk factors, or interventions associated with overweight and obesity among community college students. Except for the Minnesota study noted above, there are no studies that examine the obesity epidemic in the context of community colleges. To address this lack of available research, and with the objective of proposing future interventions that would benefit the health of our student body, I interviewed eleven students and former students in Fall 2010. Each participant (ten females and one male) offered perceptions about obesity and ways that the problem could be addressed at LaGuardia. Six of the participants were current students and five were former students now employed by the college.

Methods of Evaluation

I conducted one-on-one interviews lasting up to 45 minutes; afterwards, I reviewed my notes to identify key themes. Four interview ques-

tions probed attitudes towards obesity, and elicited reflection on the personal, environmental, and societal factors contributing to obesity. Participants responded to the open-ended question, "What comes to mind when you hear the word 'obesity'?" Interviewees also responded to three additional questions:

- Do you see the issue of obesity as a problem in your community and at the college?
- What factors contribute to the problem and what might be the barriers to maintaining a healthy weight?
- What potential interventions might the college undertake to prevent obesity?

Observations

Observations are organized based in the order of the most frequently identified responses offered by participants. (Bullets indicate participants' remarks.)

1. **Obesity is a deeply personal issue.** Participants spoke very personally either about their direct experiences with weight issues or about those of family members or close friends. These experiences weighed heavily in shaping attitudes. Several participants discussed how individuals they know who are overweight or obese appear to have "lost control" and how psychological issues, such as low self-esteem or addiction, are involved in distorting an individual's relationship with food:
    - It's a disease. People are addicted to food or don't have control.
    - With adults, people need to stop blaming someone else. You don't need to be a rocket scientist to know that if you eat McDonald's every day, you will have a problem.
2. **Obesity is seen as a distinctly American phenomenon.** More than half (55%) of LaGuardia students are foreign-born; their origins influence their views of the obesity epidemic. Several participants noted that in their native countries obesity was either not a problem or just emerging as a problem. Interviewees saw American society as encouraging outsized food consumption and unhealthy living. They viewed food preparation and consumption in their native countries as simpler, healthier, and of higher quality: "Everything is bigger in America, including the people."

3. **Childhood obesity weighs heavily in shaping attitudes.** Whether or not they are parents, participants revealed strong feelings about the growing rate of childhood obesity. Some viewed children as victims of a parent's poor decisions or failure to establish a healthy approach to food. Working parents' inability to afford healthy food or to find the time to purchase or prepare it was also mentioned as an important factor contributing to childhood obesity. Excessive playing of video games and television viewing were also cited. Some mentioned the lack of safety and high levels of violence in certain neighborhoods that keep children from playing outdoors. Several stated that heavy advertising of fast food, breakfast cereals, and candy makes it challenging for parents to promote the eating of healthy food:
   - Parents aren't around to give discipline. They give kids whatever food they want whenever they want it.
   - It's easier to go to McDonalds. No time to cook and also you know the child will like it.
4. **Focus is almost solely on diet-related behaviors and little on the importance of physical activity.** Most participants did not voluntarily raise exercise as a valuable approach to maintaining a healthy weight. Without prompting, only two participants pointed to physical activity as important. After being asked, participants acknowledged its value. They also highlighted obstacles to exercise, including lack of time, the cost of gym membership, and the importance of having a "workout buddy" to help motivate one to work regularly or keep fit. Almost none of the participants had taken advantage of LaGuardia's recreational facilities. Reasons included overcrowding and inconvenient scheduling:
   - I constantly speak about getting in shape, but don't want to pay $100 a month for a gym and it is tough with school. I just don't have time.
   - For me it's either money for exercise or money for food and my Metrocard.
5. **Healthy foods are less accessible and more expensive; unhealthy foods are always around, cheap, and filling.** Every participant discussed the ubiquitous presence of fast food outlets and the relative inaccessibility of healthy foods, particularly fresh fruit and vegetables, in low-income neighborhoods. The cost differential

between eating healthy foods and unhealthy foods, such as soda, fast food, chips, and candy, was frequently raised. Disparities in access to healthy food options were described, often with a sense of resigned frustration. Fast food outlets are a common presence in some participants' neighborhoods. Grocery stores and bodegas, both offering limited food choices, were identified as the only convenient options available. Well-stocked and well-maintained supermarkets offering a wide variety of quality produce were not readily accessible for participants who live in low-income neighborhoods:

- In our neighborhood, there's just pizza, fried chicken places. You have to drive outside of the neighborhood to eat well. Eating well is really hard I don't have a car and it gets hard to pick up health food.
- Everything bad for you is cheap.
- Healthy food is expensive. It's just cheaper to go to McDonald's instead of picking up healthy food. Being unhealthy goes with our budget.

All participants saw the LaGuardia campus – its buildings and immediate external surroundings – as a place where healthy food options are severely limited. While some noted that healthy food choices might be available in the College's cafeteria, they saw these as secondary in relation to the main choices, such as burgers and fries. The immediate vicinity around the college was described as devoid of healthy food options: "Around us [the LaGuardia campus], the food options are limited. In the Upper East Side, you might have healthy food options, but here it's coffee, soda, snacks, pizza, maybe a sandwich."

6. **Time pressures interfere with healthy eating and getting exercise.** Participants described busy schedules as a significant barrier to their ability to maintain a healthy weight. Between academic responsibilities, work, and family obligations, participants are unable to find the time to shop for and prepare healthy meals. Many consider it easier and quicker to rely on fast food or to consume ready-to-eat meals. Finding time for exercise is also compromised. Participants describe their schedules as too full, allowing no time to go to a gym or to exercise outdoors:
   - We don't have much time–school, work, and more work. I have only 30 or so minutes to eat and it takes time to cook meals. I'll just pick up something quickly, even if it's unhealthy.

- There's no time to eat. I attend class and study and still have to work and do other things. There's a really fast pace and there's no time to eat well.
- Time for exercise is hard is just hard to find.

7. **Participants offered a range of actions the college could take to improve food choices and promote exercise.** A small number of participants thought the College had no role to play in promoting healthy eating or exercise. These few participants felt the College could only have a limited impact on people's behaviors. But most participants strongly felt the College should foster obesity prevention initiatives. Many believed something should be done to increase the availability and promote the consumption of healthier foods. The cafeteria, seen by some as tilting more towards the selling of unhealthy foods, was the focus of many recommendations. Participants suggested that more healthy food choices be offered, while others suggested alternative on-campus sites for the sale of healthy food:
   - If the cafeteria had more healthy foods, at a reasonable price, and didn't have such a wide choice of unhealthy foods, students would buy more healthy food instead of burgers and chicken nuggets.
   - People would eat healthy if healthy food was available. They choose unhealthy food by default. If the choice was there, they'd eat healthy food.
   - It starts at home and stays with them. If we took away all the McDonald's in the world, not sure it would make any difference.

   Several students recommended that classes be offered to explore the complex issues of food, culture, and the socioeconomic factors contributing to the obesity epidemic. A few students also suggested that nutrition education is needed, helping people to learn how to prepare and eat healthy foods. Given the high rate of childhood obesity, some thought that education programs to help parents make the right food choices for children would be valuable.
   - Classes could bring awareness to the [obesity] issue. It's not just you. There are other things at play. Awareness would change that. If you become more aware of food, where it comes from, it could affect your thinking and others.

- What I observe with students is ignorance. Not sure if they teach nutrition in high school. Students are completely unaware of the dangers of eating unhealthy food.
- People need to be connected to food. Why not create a community around cooking and eating?

Limitations

The findings of this study highlight directions for further exploration and may help guide future research. The small sample size, comprised mostly of females at one large, urban, community college, limits the ability to generalize the findings to the larger population of community college students. Another limitation is that no independent analysis of the data took place either through commonly used analysis tools, such as the Statistical Package for Social Sciences, nor by an independent researcher. The process of establishing criteria for data inclusion and interpretation rested solely with the researcher and may have biased the interpretation of the data. Future studies should be undertaken to confirm the findings, conclusions, and recommendations drawn from this study.

Recommendations

Given the disturbingly high rate of childhood obesity, colleges will see substantially greater numbers of students who are overweight or obese. The deep impact of the obesity epidemic compels action, but to date the focus of research and prevention activities has ignored community colleges and their untapped potential to reach millions of students, as well as faculty and staff, and the communities that they serve. Ideally positioned as trusted community institutions, and with the ability to tap vital research skills that can deepen understanding of the epidemic, two-year colleges can implement vastly needed prevention programs. This study's findings suggest some important directions for future research and action.

A community college's important first step in facing this vast epidemic will be appreciating the epidemic's complexity. The adoption of one elegant solution or intervention will not be sufficient. Instead, community colleges must begin to address the "ecological niche" that individuals occupy. Colleges can learn about and influence the complex web of behavioral factors (habits, emotions, cognitions, attitudes, and

beliefs) and the environmental factors (physical, economic, and socio-cultural) that affect food intake and physical activity. Obesity interventions must also consider the cultural background and socioeconomic condition of the students. Different cultural attitudes towards obesity are widely recognized and must inform decisions regarding prevention (Sira and White). Also essential is appreciation of the economic realities that students face and the barriers these impose on accessing nutritious food and engaging in regular exercise.

An individual lives in many different environments – the family, workplace, and, for students, the college environment – all of which affect weight status. Important studies of childhood obesity locate its causes in the larger context of the family, school, and larger community environment (Davison and Birch). An alternative to addressing individual experience detached from many contributing factors, Ecological Systems Theory may prove useful in considering approaches to preventing and treating obesity in community college students.

As indicated by students interviewed for this paper, community colleges must approach the intensely personal issue of obesity delicately, with sensitivity to its complex personal, cultural, and socioeconomic dimensions. Stigma and discrimination are commonly reported; colleges need to be exceedingly careful not to exacerbate the negative attitudes that are already pervasive (Latner, Stunkard, and Wilson). Disordered thinking and behaviors about eating, including distorted body perception, binge eating, and purging are widespread among college students, particularly women (Wharton, Adams, and Hampl; Sira and White). Efforts to promote healthy eating and exercise must be approached with an acute awareness of the disturbingly high levels of disordered eating that is all too common among college students. Assigning responsibility for obesity to individuals, portraying obese people as lazy and undisciplined and using language of blame, weakness, or personal failure all undermine efforts to combat the epidemic. The evidence is overpowering: numerous studies over time have shown how today's eating and exercise environment undermines the ability of individuals to make healthy decisions about eating and weight (Brownell et al.).

Unsurprisingly, students in the present study viewed the obesity epidemic from the perspective of its impact on children. In neighborhoods within miles of the College, one out of two school-age children are overweight or obese (Hartocollis). Combating childhood obesity

will require parental engagement. Parents play a central role in shaping eating and physical activity habits of their children. Community colleges are well-positioned to offer the programs and services which parents need to help them maintain a healthy weight and potentially engage their children in obesity prevention activities. Nutrition education, cooking classes and expanded access to recreational facilities are all worth consideration.

Interviewees also reported that incorporating physical activity into their daily routine is an enormous challenge given time pressures and the lack of availability of recreational space. Efforts to promote physical activity for busy college students might include credit-bearing courses that combine physical activity and academic work (Sailors et al.). Participants did not cite improvements in the "built environment" as a possible intervention leading to less sedentary activity. Yet an examination of the surrounding campus areas and working with local officials and organizations could lead to changes in the campus environment that motivate walking and encourage other outdoor exercise.

Frequent reference to an overwhelming presence of fast food suggests that community colleges should evaluate the college nutrition environment. Assessment tools commonly used in K–12 schools, workplaces, and childcare settings are widely available and, when adapted to college settings, provide a useful way to examine nutrition programs, policies, and food offerings (Freedman). Providing better food choices at college campuses is the subject of an important report issued by the Campaign against Diabetes of the City University of New York (CUNY) which offers a valuable direction for colleges to follow to improve food choices at their campuses. Examining the availability of healthy and unhealthy foods at CUNY campuses, the report shows significant barriers in the ability of students, faculty, and staff to obtain healthy foods at the campuses (City University of New York).

This study also points to the "busyness" and "lack of time" as significant obstacles to healthy eating and regular exercise. A similar finding was noted in a study examining the perspectives of community center workers serving children and families in a low-income Hispanic neighborhood (Chatterjee, Blakely, and Barton). The time pressures associated with balancing multiple responsibilities that include holding a job, completing academic work, and being a caregiver may impose pivotal barriers to promoting a healthier lifestyle. An analysis of the

lack of time that students have to maintain a healthy weight raises a host of socioeconomic issues that, however complicated and vast, cannot be ignored.

Exploration and possible implementation of interventions taken at four-year colleges could benefit two-year institutions. Highlighting healthy foods in cafeterias or dining halls showed some promise in leading to the purchase of healthful food (Peterson et al.; Freedman and Conners). In the present study, interviewees recommended the offering of classes that explore the complex issues surrounding food, nutrition and obesity. Such an approach may be warranted. One study of a course focused on food-related social issues led to better outcomes in healthy eating than comparison courses offered on health issues (Hekler, Gardner, and Robinson). Nutrition education in a college class may also be a viable way to assist college students in improving their diets. Class-based nutrition education has shown the potential to reduce consumption of sugar-sweetened soft drinks and increase consumption of low-fat milk (Ha et al.).

Community colleges are centers for training nurses, dieticians, physical therapists, and mental health professionals, all of whom can play instrumental roles in furthering efforts to halt the obesity epidemic. Community colleges could have a far-reaching impact by strengthening the curriculum to promote greater understanding and involvement in the prevention, care, and treatment of obesity. College health centers also are valuable venues for the dissemination of health information and can assume a pivotal role in promoting obesity prevention and assisting overweight and obese students in taking steps to lose weight (Pedersen et al.). However, there remains an essential need for more research regarding obesity in the community college setting. If we are to design ways to lessen risk factors, we must first understand the prevalence of obesity among community college students and the specific risk factors they encounter in their multiple environments.

Conclusion

College campuses have deep experience in tackling public health problems. Initiatives in reducing tobacco and illegal drug use, encouraging responsible drinking, and stemming the HIV epidemic provide important lessons in the benefits and challenges community colleges may encounter as they face the obesity epidemic. Its breadth and impact, the

vast number of current and future students affected, and its harrowing consequences for individual health, school performance, stigma and discrimination demand aggressive action. As this enormous health crisis sweeps across our neighborhoods, community colleges can either turn away or lead. Indeed, community colleges throughout their history have confronted complex problems; our very mission is to serve the well-being of our communities. Among our resources are an abundance of multi-disciplinary knowledge and diverse abilities to reach and shape the lives of millions. For the sake of our students and their futures, we must now combine mission, knowledge, and skill in taking on this most profound challenge.

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