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Food for Thought

EATING HABITS OF COLLEGE FRESHMEN EXAMINED THROUGH
THE SOCIO-ECOLOGICAL MODEL

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HONR499: HONORS RESEARCH PROJECT

NOVEMBER 2018

Introduction to the Project:

Purpose: The first purpose of this project is to assess the dietary habits of college freshmen living in on-campus housing. A review of the literature regarding college student eating behavior will be completed in order to identify key determinants affecting students' meal choices. Once the information is gathered, the second goal of this project is to develop an intervention specifically designed for UM students to improve eating habits campus wide.

The Problem: Eating Habits of College Freshmen:

At the University of Montana, all freshmen are required to live on campus for their first year of schooling (Montana Board of Regents, 1999). Additionally, all students living on campus are mandated to purchase an on-campus meal plan, allowing them to eat their meals at a variety of different campus venues (University of Montana, 2018). Despite the fact that UM students, like many students in other universities across the country, are provided with a plethora of healthy food choices, many freshmen opt to choose unhealthy meals.

In fact, a study completed at Oregon State University in 2011 reflected just how detrimental those choices are, stating that the average college student eats less than one serving of fruits and vegetables per day (Cardinal, 2011). Furthermore, the 582 participant study revealed that males and females alike were consuming more than 30% of their calories from fat, which exceeds the recommendation set by the American Dietetic Association (Cardinal, 2011). The University of Montana is not immune to the current trend of unhealthy eating. Results from UM's 2018 National College Health Assessment show that 56.4% of those surveyed eat only 1-2 servings of fruits and vegetables each day (National College Health Assessment, 2018).

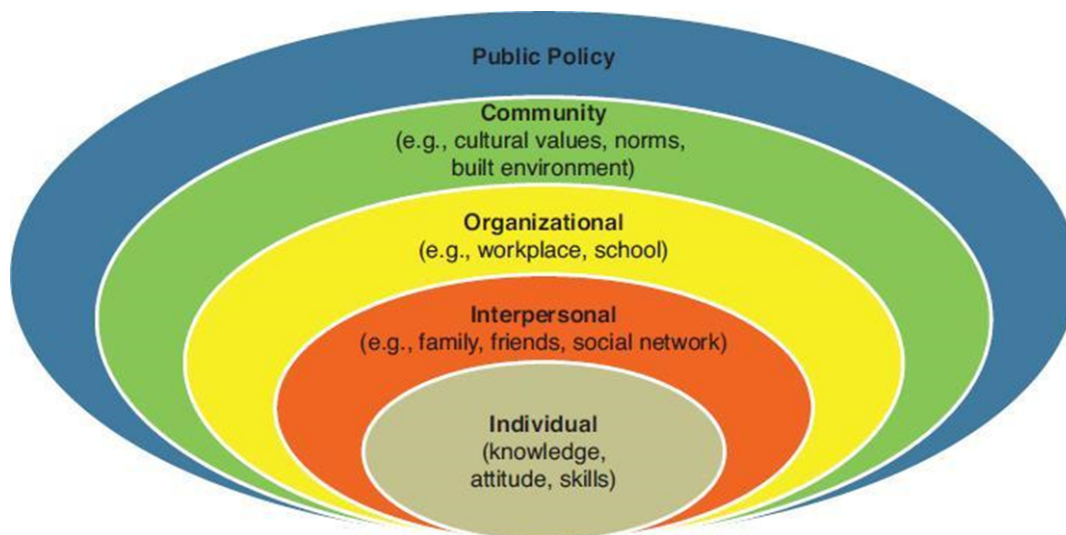
Although poor eating habits may seem like a minor problem for college students today, the consequences of these choices can have serious implications later on in life. An article published by the American Medical Association states that poor eating habits are the highest risk factor for obesity related diseases as well as premature death (Mueller, 2017). So why do college students continue to choose unhealthy foods rather than their more nutritious counterparts? This question will be answered within the context of the Socio-ecological Model.

Application of the Socio-Ecological Model

Description of the Model:

The socio-ecological model of health behavior is a comprehensive approach used in the field of Community Health to understand the multifaceted effects of environmental and personal factors that determine behavior. The model consists of five levels, with each level focusing on a different set of factors. Within each level, there are several components that specifically influence an individual, resulting in an individual's choice to engage in or omit a particular behavior.

As depicted in the image below, the socio-ecological model is commonly portrayed as a series of concentric circles, with the individual level at the core. Individual level factors include a person's knowledge, prior beliefs, and attitudes concerning a specific health behavior. Moving outward, the interpersonal level includes the impact of relationships, family, and friends. The organizational level encompasses larger social institutions that impact an individual's behavior, such as work or school. Next, the community level involves the physical and social environment, and finally, public policy incorporates local, state, and federal laws as well as policies that influence health (Hayden, 2009). In this context, the socio-ecological model will be implemented in reference to the eating habits of college freshman living on campus at collegiate institutions nationwide.



SOURCE: NIH, 2016.

Review of the Literature Using the Socio-Ecological Model

Individual Factors:

Individual factors incorporated into the socio-ecological model include beliefs, attitudes, and opinions surrounding a certain behavior (Doyle, Ward, & Oomen-Early, 2010). Additionally, values and morals often accompany these beliefs. At the individual level, it is important to remember that information, or lack thereof, is often a barrier to action. However, in the field of health, there are a multitude of factors affecting each decision. Identifying factors within the individual level of the model helps to highlight gaps in information and determine trends of belief and attitudes.

- I. A review of the literature reveals that one of the most important factors affecting the eating habits of college freshmen is lack of knowledge about healthy food choices. In an article describing the interaction between college life and food, author Deborah Harris makes the point that what college students' view as nutritious is heavily influenced by media and marketing strategies. She emphasizes this point, "Knowledge about what constitutes a "healthy" diet is a social construction shaped by food industry interests." Students associate healthy foods by what they see in commercials and on product packaging (Harris, 2017). This concept is illustrated in another article from the Journal of Nutrition and Human Health, stating that, "If college students are unaware of the nutritional requirements to maintain a healthy

body weight, they can make poor nutritional decisions, which can cause poor weight management and health problems” (Abraham, Noriega, & Shin, 2018). Moreover, students have an inaccurate understanding of portion sizing, due to their growth in an era that promotes oversized meals (Steinberg, 2012).

- II. A second reason why college students do not participate in healthy eating behaviors is due to their belief that exercise is an excuse for poor eating (Harris, 2017). More specifically, students believe that their commitment to physical activity will outweigh an unhealthy diet, and therefore they do not need to alter their food choices.
- III. A third individual factor impacting eating habits is the amount of perceived stress felt by freshmen. The adjustment from high school into college is a stage of life in which stress is prevalent, and this transition can worsen dietary habits (Sameer Deshpande, Basil, & Basil, 2009). In a study conducted by Hudd, et al., (2000) , researchers concluded that students feeling high levels of stress were more likely to engage in poor eating habits such as drinking soda and consuming junk food, whereas less stressed students did not. This study reflects the idea that personal perceptions strongly affect behavior.

Interpersonal Factors:

Interpersonal factors associated with the socio-ecological model include the attitudes and opinions of people around us, including family, friends, and peers (Doyle, Ward, & Oomen-Early, 2010). In this context, interpersonal factors relate to the upholding of friendships, as well as familial commitments. At this level, factors that affect behavior expand beyond individual beliefs and focus more on social influences.

- I. A review of the literature reveals that an important interpersonal factor that affects eating habits is a college freshman’s obligation to social demands. Many freshmen arrive at college with few acquaintances. When this occurs, students will go out of their way to attend social gatherings, join clubs, and gain friendships (Hayden, 2009). Alcohol is commonly consumed at these events, and a majority of drinking

done by college freshmen goes underreported (LaCaille, Dauner, Krambeer, & Pedersen, 2011).

- II. Going hand in hand with social demands, college students also commonly state that they lack the time to choose and eat proper meals (Tallent, 2016). As stated by journalist Sam Deadrick, “just soak in the symphony of complaints about midterms, presentations and essays. As a result, instant ramen and meal-replacement bars have become a mainstay of the typical college diet” (2017).

Organizational Factors:

Organizational factors of the socio-ecological model include the structure and institutional policies in place that affect health behaviors (Doyle, Ward, & Oomen-Early, 2010). This level is also influenced by the overall environment in which the behavior is taking place, including both the physical and social aspects. The factors in this level are shaped by the organizational systems and rules in which the behaviors fit.

- I. The first organizational factor limiting access to healthy food is the specific meal time frames that are implemented by UM Dining. According to the UM Dining website, breakfast is served from 7:15-10am, lunch from 11-1:30pm, and dinner from 5-7:30pm (University of Montana, 2018). If students are unable to eat during these times, they may eat during one of the ‘off hours’, but they are offered less choices. As previously mentioned, freshmen are usually enrolled in full course loads and also participate in a variety of extracurricular activities, therefore they are frequently unable to eat within the scheduled time blocks.
- II. A second organizational factor, mentioned by Tallent, is the fact that access to healthy food is limited through meal card restrictions and lack of nutrition information posted at campus establishments (Tallent, 2016).

Community Factors:

Community factors involve the social norms, cultural values, and organizational interactions that affect behavior change (Doyle, Ward, & Oomen-Early, 2010). This encompasses the college community, as well as the Missoula community, and on the largest scale, the American community. When participation in a particular behavior is commonplace within a community, people are more willing to engage in that behavior. Therefore, it is vital to increase the participation of community level institutions in order to inspire change.

- I. The first factor at this level is the overall lack of guidance within the college community. Until entering college, most incoming freshmen are accustomed to eating whatever their caregivers provided (Steinberg 2012). However, the move to college coincides with a transition into independence. As stated by Deshpande, Basil and Basil (2009), “The transition to college or university is a critical period for young adults, who are often facing their first opportunity to make their own food decisions.” Although freedom can be a useful tool, it is also detrimental to some students. As claimed by nutrition specialists, there are students who become overwhelmed by the excess of choices, ultimately leading to unhealthy decisions (Steinberg, 2012).
- II. The second community component in this level is the lack of food culture within the United States. In the book, *The Omnivores Dilemma: A Natural History of Four Meals*, author Michael Pollan claims that the United States does not have established food rules, and therefore there is not a nationwide mindset of food appreciation (Pollan, 2006).
- III. The final community factor affecting college freshmen eating habits is the depiction of college students in the media. As mentioned by Harris, college life is represented in the media as binge drinking, frat parties, and late night consumption of highly processed foods (Harris, 2017). As children grow up exposed to these images, they conclude that these behaviors are part of the college experience. It has become generally accepted that unhealthy eating is the college norm.

Public Policy/Enabling Environment:

Public policy and enabling factors of the socio-ecological model include governmental policies, local, state, and federal laws, as well as other structural regulations (Doyle, Ward, & Oomen-Early, 2010). Policy affects health by creating mandates or imposing restrictions that determine different behaviors. Comparatively, enabling factors affect behavior change by providing easier access to action. On the other hand, a lack of enabling factors stands as a barrier to healthy behaviors.

- I. The first structural regulation that encourages unhealthy eating is the excess of convenience foods sold on UM's campus. Whilst the University of Montana does serve a variety of healthy options in the Food Zoo, it offers even more unhealthy and convenient options campus wide (UM Places to Eat, 2018). Additionally, the convenient options are offered for longer time periods throughout the day. There are no university wide policies that state that foods sold on campus must be held to a certain nutritional standard, and there are also no policies in place requiring freshmen to take a course to learn about nutritional standards (University Operating Policies, 2018).

- II. An enabling factor that contributes to unhealthy eating is the lack of kitchen spaces provided for UM freshmen (Deadrick, 2017). For safety reasons, a vast majority of University of Montana dorm rooms are only allowed to have microwaves as a cooking tool. There are communal kitchens available, but they often have outdated equipment and cooking restrictions (Housing, 2018) Consequently, freshmen are unable to cook meals for themselves and must rely solely on the food that is provided for them.

Discussion: Application to UM Students' Eating Habits
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Clearly freshmen students' eating behaviors are influenced by a variety of factors. The Socio-ecological Model provides a structure for examining these factors. At the individual level, a lack

of nutrition knowledge accompanied by the belief that exercise is a good substitute for healthy foods contributes to the poor eating habits. When moving to an interpersonal level, factors include social demands and lack of time. Organizational variables involve structural decisions such as class scheduling, dining hall hours, and a lack of nutrition labeling. In the community level, freshmen face an overwhelming amount of choice and a lack of strong food culture. Finally, the absence of kitchen space and public policy surrounding nutrition impede on the ability for freshmen to cook for themselves.

In addition to the conclusions made in the literature about the eating habits of college freshmen, there are factors specific to UM that may further influence dietary choices. One public policy factor that potentially affects eating habits is the University of Montana's current policy about cooking in dorm rooms. Currently, all students living in on-campus housing have access to a communal kitchen. However, as per policy regulations, students are forbidden from cooking any meals that contain meat or cooking oils (Housing, 2018). This cooking policy restricts students' ability to cook a large variety of healthy meals. However, the policy still allows for items such as baked goods, take and bake pizzas, and macaroni and cheese.

Another probable factor impacting eating habits at UM includes the overall lack of proper portion sizing in university eating establishments. For example, the Food Zoo features an all-you-can-eat buffet as well as an endless refill soda station. As previously mentioned, students lack the prior knowledge needed to choose accurate portion sizes. Furthermore, the plates and cups used in the dining hall are large and unlabeled, making it even more difficult for students to determine proper portioning of meals.

Conclusion and Recommendations

Conclusion:

In theory, University of Montana freshmen are given a lot of say in their food choices. However, a deeper look into the socio-ecologic model of health behavior shows that within each level there are several reoccurring factors influencing and affecting food choices. If university health

professionals and administrators hope to have a positive impact on students' nutritional habits, they must focus on strategies and intervention that span the multiple levels of influences factors; individual, intrapersonal, organizational, community, and public policy.

Recommendations:

Although some aspects of the first year experience, such as social demands and packed course loads, cannot be altered, The University of Montana can still utilize different techniques to improve eating habits campus wide. Upon a review of the Socio-Ecological model, I believe that the University should combat these barriers to healthy foods by increasing efforts at each level of the model. Specifically:

- Individual Level: Food Tours during orientation, and articles about healthy meal alternatives posted on UM's HealthNut Blog*, would increase student awareness about dietary resources and options on campus.
- Interpersonal Level: Incorporating nutrition and stress management information into the Freshmen Seminar course curriculum would increase student knowledge without further impeding on busy schedules. Additionally, UM's registered dietician and counseling services could be brought in to deliver the lectures.
- Organizational Level: Food Zoo hours could be expanded to allow more time for students to eat meals without "off hour" meal restrictions. In addition, the Food Zoo's "to-go" box program could be better expanded and marketed.
- Community Level: The creation of a University of Montana Cooking and Food Club would increase food culture on campus and stand as an additional resource for students looking to learn more about different food choices.
- Policy Level: A policy could be enacted requiring nutrition labeling on all food products sold on University Property. Additionally, foods deemed high in nutritious value will be marked by a sign of approval that will be easily recognizable to students.

Overall, college freshmen at UM, and nationwide, are inundated with opportunities during their first months at school. While we cannot force students to make healthier lifestyle decisions, we can provide them with the educational and environmental supports needed to make informed choices.

Ultimately, as the model reflects, freshmen are strongly impacted by widening layers of influence (Doyle, Ward, & Oomen-Early, 2010). Hopefully, the information gained in this model will help future UM students to thrive within the context of their food-based environments.

*HealthNut is a student run blog created by UM's Curry Health Wellness Center. The blog has weekly posts featuring tips and tricks to stay healthy as a college student.

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