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Do Negative Perceptions of Students' Built Environment Affect Their Health Status?

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Abstract

Research suggests that the social determinants of health should be evaluated in order to combat health disparities for disadvantaged populations. The five social determinants of health are economic stability, education, health and healthcare, neighborhood and built environment, and social and community context. Research has been done concerning built environment's impact on health, however little research has been done on college student's perception of their campus built environment and how it impacts their health. The purpose of this study is to determine if there is a relationship between negative perceptions of built environment and poor student health statuses, and if so compare the results to existing studies and literature. To gather data, participants were given a survey with questions regarding demographic factors, Eastern Kentucky University's built environment, and perception of health. The results of this study did not prove nor disprove the relationship between negative perception and poor health outcomes. However, it did gather information relating to student concerns. The results of this study did not have significant similarities to existing literature and studies. The results of this study are likely to contribute to understanding how built environment impacts student health as well as improve decision making concerning location of resources.

Keywords and phrases: social determinants, built environment, college students, self-reported health, perception

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Introduction

Students are at risk of having poor health due to a multitude of factors. College student's health status is fragile; often, this is the first time that these young adults are independent enough to make choices concerning health. Along with this period of growth, students are facing constant stress over classes, social life, and financial stability. Healthy stress can be managed by healthy habits such as running. However, chronic stress results in poor health conditions such as anxiety, insomnia, high blood pressure, and even contributing to major illnesses such as heart disease, depression, and obesity (APA 2019). The status of health for college students is impacted by stress that is worsened by disparities among social determinants of health. The social determinants of health include economic stability, education, social and community context, health and health care, and neighborhood and built environment. According to Prus (2011), "… sociodemographic factors like sex, age, race, and nativity interact with socioeconomic factors to influence exposure to social stressors, health practices and behaviours, access to medical care and insurance, and, ultimately, health" meaning that sociodemographic factors must be evaluated in order to determine its effect on other areas of health.

A main stressor in poor health outcomes is due to built environment. Built environment is defined as man-made surroundings that provide the setting for human activity, including neighborhoods, access to foods that support health eating patterns, crime and violence, environmental conditions, and housing (HealthyPeople2020). Built environment affects a person's physical activity; for example, a lack of sidewalks will contribute to a sedentary life style; not having access to a supermarket will result in poor food choices which could lead to outcomes such as obesity or heart disease. Perception

plays a vital role in health outcomes. Negative perceptions of built environment create poor health outcomes especially concerning marginalized groups. A person who perceives his or her neighborhood as too far from the supermarket is more likely to take advantage of fast food options closer to the individual. His or her perception is influencing his or her food intake which can lead to obesity.

The term disparity is often associated with race or ethnicity, however there are many dimensions of disparity within the United States, especially in health. Health disparity is defined as a particular type of health difference that is associated with social, economic, or environmental disadvantage (HealthyPeople 2020). Tyler and Teitelbaum (2019) dive into how health disparities greatly affect groups who are already systematically disadvantaged due to their race, ethnicity, religion, gender, etc. Health care mostly focuses on eliminating diseases or illness and health care services, however there are other factors that impact health, not only diseases. All components (health, genetics, behavior) interact with health services, socioeconomic status, environment, and legislation which then influences a person's health. Policy is needed to reform policies that have been unjustly put in place concerning disadvantaged populations (Tyler & Teitelbaum 2019). The goal is health equity which is defined as the highest level of health for all people, "achieving health equity requires valuing everyone equally with focused and ongoing societal efforts to address avoidable inequalities, historical and contemporary injustices, and the elimination of health and health care disparities" (HealthyPeople 2020). However, a key component in an individual's health status that is often not considered is perception.

Health is impacted by a person's perception of his/her social determinants, specifically built environment. Perception is a subjective experience that is unique to the individual. Negative perceptions of one's built environment creates stress for the individual which can negatively impact their health. Perceptions of safety, access to physical activity, and location affect neighborhood health outcomes (Gay, Evenson, & Smith, 2010). It is often difficult for vulnerable individuals with a minority status to deal with other social determinants as well. Vulnerability comprises: (1) differential exposures to stressors; (2) differential susceptibility and sensitivity to adverse outcomes if exposed; (3) differential preparedness to respond; and (4) differential 'coping,' 'resilience,' 'adaptability,' or ability to recover from impacts," (Downs & Ross 2011). Health disparities are not typically due to one factor, but rather the factors are dependent upon each other and the individual cannot better themselves due to not being able to combat all areas of inequality at once. Vulnerability is dominated by psychosocial stress (Downs & Ross 2011); meaning that individuals are unable to cope with the situation in front of them and it impacts their emotional and physiological reactions. The individual perceives a situation to be out of his/her control and therefore his/her mind is unable to cope. "Perceptions of risk are a key of risk-induced stress…" (Downs & Ross 2011); the risk itself is not the only cause of stress, but how the person perceives that risk adds to the stress and can make the situation seem more negative than it actual is and cause for unnecessary stress. In the study, by Downs and Ross (2011), there were significant gender and ethnic disparities throughout the project, leading to the assumption that the perception adds negatively to the healthy disparities already faced by these individuals.

Within a neighborhood there can be both healthy and unhealthy features that implement health-constraining or promoting objectives. For example, "…a neighborhood can have access to a healthy feature, such as a grocery store that provides access to fresh fruits and vegetables, and an unhealthy feature, such as high crime that may operate in a prohibitive way in relation to healthy behaviors and activities," (Denstel & Broyles 2016). No single aspect of an environment explains health in individuals. Instead, to effectively model the association between neighborhoods and their inhabitant's health, it is important to understand the interrelated nature of determinants within the neighborhood. Food, physical activity, and social environment are interrelated and thereby influence energy balance in individuals. Given that the average supermarket is located approximately 2.9 miles from U.S households (Ver Ploeg, Mancino, Todd, Clay, & Scharadin, 2015) Neighborhoods that are overall unhealthy are not caused by access to fast foods, but the addition of multiple factors combined with access to fast foods that work together to inhibit the promotion of health. Fast food outlets often take advantage due to this; "Research from New Zealand found that access to fast food outlets were strongly associated with neighborhood deprivation…" (Denstel & Broyles 2016), implying that fast food outlets understand that neighborhoods that are low-income typically do not have access to healthier options and choose the cheapest option that is closest to them. A factor that most studies included was walkability; Gunn et. al (2017) stated, "A number of built environment features are consistently shown to facilitate transport walking around residential homes, which are the origins of many walking trips. These include: highly connected streets, high population density, mixed land use and good access to destinations and transit, and sidewalk provision," if the built environment

does not support physical activity by having quality features such as sidewalks, connected streets, etc. then the health statuses of the residents will suffer as the result.

Place is not only materialistic (school, church, workplace, and neighborhood), but also the conditions (social, economic, and physical) in these environments (HealthyPeople2020). It is vital to understand the relationship between how different populations experience place and place's impact on health as the foundation for the social determinants of health. A person's perception of his or her place, meaning in this context neighborhood, is significant to the correlation between self-rated health and quality of life (Muhajarine, Labonte, Williams, & Randall, 2008). In a study regarding body mass index in Hispanic preschoolers, Chang et al., (2017) found that "Factors such as parental perception of physical and social neighborhood disorder, traffic safety, availability of places for child's physical activity, and neighborhood social informal controls have been associated with lower levels of physical activity and higher Body Mass Index (BMI) in Hispanic preschoolers," which again includes the perception component. The perceived neighborhood and a person's influence on self-rated health vary due to socioeconomic factors dependent on the neighborhood. For example, a person who lives in a low-socioeconomic neighborhood is more likely to have poor self-rated health due to the person feeling that he or she has little to no influence on his or her quality of life. It is known that there are complex patterns of individual and place-based effects on health.

Built environment impacts cardio-metabolic health and other health outcomes. There is strong evidence for longitudinal relationships between walkability and obesity, type two diabetes, and hypertension (Chandrabose et al. 2019). There is also a direct impact on urban sprawl and the risk of obesity in the area. Walkability is vital when

analyzing a built environment because often marginalized people who are at a low-income status are unable to afford cars or other methods of transportation besides walking. High density traffic, road proximity, and fast food restaurants were associated with cardiovascular disease (CVD) outcomes (Malambo, Kengne, Villiers, Lambert, Phone 2016). If the person is unable to walk to where the need to go, they simply cannot go. This leads to a sedimentary lifestyle that can lead to poor health outcomes such as cardiovascular disease and hypertension. With this in mind public health initiatives should explore how urban areas can use it's built environment to promote better health outcomes; "… urban attributes such as street connectivity, residential density, recreational facilities and availability of traffic devises improves neighborhood walkability which may promote walking, leisure, and transport related to physical activity which, consequently, lowers the incidence of CVDs," (Malambo, Kengne, Villiers, Lambert, & Phone 2016). Another aspect of walkability is a negative perception of neighborhood safety's influence on health. A study by Sun, Cenzer, Kao, Ahalt, & Williams (2011) stated that "… perceived poor neighborhood safety is associated with baseline physical inactivity," while the study was focused on older adults, it is important to notice that perception of safety is a prohibitive measure of physical activity which can lead to poor health outcomes.

A negative perception of a built environment could lead to chronic stress. "Exposures to negative, stressful conditions as well as those that may place a physiological demand, may result in overexposure to neural, endocrine, and immune stress," (Chang, Ahmed, & Natale, 2017). Living in a built environment that does not support healthy features can add to the health disparities an individual may face which

can worsen their health outcomes. "… an extreme amount of stress can have health consequences and adversely affect the immune, cardiovascular, neuroendocrine, and central nervous system," (Understanding Chronic Stress, n.d.). Those at risk for chronic stress include those who are already facing health disparities and therefore are already disadvantaged when it comes to the aspects of social determinants.

Purpose/Hypothesis

Eastern Kentucky University has many resources available to students: a library, recreational facility, dining hall, and student health center. However, off-campus students do not have the same perception of those resources than a student on campus, and depending on the residence halls location, on-campus students' perception will vary as well. The implications of these perceptions can affect the success of students and must be explored to prevent health disparities at Eastern Kentucky University. Therefore, the purpose of this study is to determine if perception of built environment affects the self-reported health of Eastern Kentucky University students and if so, to compare the results to existing literature and studies.

To test the hypothesis, the researcher purposed a central research question with five sub questions.

1. Do dorms farther away from the center of campus equal poorer health statuses?
    a. What are students concerned about?
    b. How does built environment impact stress?
    c. How does stress impact health?
    d. What are students' perceptions of safety?

e. Is there a correlation between negative perception and health status?

Methods

The central argument and subsequent research questions were explored using a cross-sectional survey. The survey consisted of twenty-one questions, two open-ended, three rating, and sixteen multiple choice. The questions pertained to demographic factors, Eastern Kentucky University's built environment, and student's perception of their health. The questions were created based off of existing literature relating to built environment's effect on health as well as knowledge about perception's impact on health. Prior to the beginning of the study, approval was necessary from the Institutional Review Board at Eastern Kentucky University. Upon approval by the Institutional Review Board, a convenience sample, recommended by the faculty mentor, was gathered of students from six Public Health 310 courses within Eastern Kentucky University's Department of Public Health. The aim was to get 150 participants with a mix of different age-levels and ethnicities. The inclusion criteria were that participants must be eighteen years or older and must be able to read and comprehend English. Once permission was given from the designated course instructors, the survey (see attached) was issued along with an informed consent form (see attached) so students would be aware that the survey was voluntary, the information collected would be anonymous, and what the main purpose behind the survey was. The students were informed if they were under the age of eighteen or simply did not wish to participate that they would leave their survey blank and there were no consequences for not participating. The first four questions were demographic items that would allow for comparison based upon ethnicity, gender, grade level, and current housing. On average, the survey took less than ten minutes to complete. A

potential risk was the emotional harm of asking if a student felt safe in his/her housing, a statement to contact Eastern Kentucky University police if one answered 'yes' was added to help students in that situation. Once the data was collected it was transcribed into general descriptive statistics (frequencies and percentages) for all of the questions (Tables 1-27). For the research question, "What are students concerned about?" categories were created based upon themes of the various responses. To test the remaining research questions, the researcher performed cross-tabulation and chi-square analysis with an alpha level of $p < 0.05$ (Figures 1-15).

Results

Participants

Out of the 138 participants in the study, eight were freshman, forty-one were sophomores, thirty-eight were juniors, and fifty were seniors. A well as seventy-eight out of the 138 identified as female and sixty identified as male. About three percent were Asian/Pacific Islander, about eight percent reported Black or African American, about two percent reported Hispanic, and eight-four percent reported White/Caucasian. In regards to housing, eighty-one participants reported that they lived off-campus while fifty-seven reported living on-campus; fourteen in Grand Campus, eleven in South Hall, seven in North Hall, nine in Martin Hall, four in Walters Hall, for in Keene Hall, two in McGregor Hall, one in Burnam Hall, and one in Palmer Hall.

Health Related Factors

Concerning health related questions about thirty-eight reported exercising three to five days a week, with around thirty-six percent reported exercising one to two days a week (Table 9). Fifty-five percent of participants reported utilizing the campus gym to

exercise (Table 7). Around fifty-one percent of students reported not participating in clubs or sports (Table 10). Students self-reported health resulted in twenty-six percent of participants reported excellent, sixty-three percent reported good, ten percent reported fair, and only about one percent reported poor health (Table 18). On reporting stress on a scale from one (not stressed) to five (very stressed) four percent reported a one (not stressed), nineteen percent a two, about twenty-five percent a three, about thirty-three percent a four, and around twenty percent a five (very stressed) (Table 17).

Distance

In response to time it takes to get to Eastern Kentucky University for off-campus students, fifty-eight percent reported less than ten minutes, eighteen percent reported ten to twenty minutes, only eight percent reported twenty to thirty minutes, and sixteen percent reported more than thirty minutes (Table 5). In comparison, eight percent of on-campus students reported taking less than five minutes to get to class, fifty-two percent reported five to ten minutes, thirty-six percent reported taking ten to fifteen minutes, and three percent reported taking fifteen to twenty minutes (Table 25). Seventy-seven percent of students reported that EKU's sidewalks are connected and in good condition. Twenty-three percent disagreed and reported the sidewalks were in poor condition (Table 6).

Campus Appearance

Majority of participants reported the appearance of their environment as clean, brand new, and appropriate. The campus gym, library, student health center, student center, and dining hall were majorly reported having better quality. Almost all students reported feeling safe in their housing (Table 7). Majority of the participants reported having an overall positive perception of Eastern Kentucky University's built environment

(Table 27). Fifty-eight percent of upper classmen reported moving since their first year of college (Table 13). The main reasons included cheaper off-campus housing, better on-campus housing, roommate issues or an issue of cleanliness (Table 13a).

Student Concerns

Regarding student concerns, when prompted with a list of concerns, students' top three were crime in the area (44.7%), cleanliness of campus (37.12%), and cigarette smoke (36.6%) (Table 11). When given a fill-in-the-blank prompt, students' top concerns were walking at night, parking, and crime (Table 19). Participants top health concerns were nutrition/eating healthy, chronic/communicable diseases, and access to healthy foods (Table 26). Concerning crime in the area, sixty-eight percent of participants reported low crime rate, thirty percent reported moderate crime rate, and less than two percent reported a high crime rate (Table 12).

How does built environment impact stress?

A cross-tabulation and chi-square analysis was performed comparing the questions "Are EKU's sidewalks connected and in good condition?" with "How stressed would you rate yourself?" Stress was measured using a Likert Scale with one meaning not stressed to five meaning very stressed. The p-value for the Pearson Chi-Square is $0.342 > 0.05$ meaning it is not significant. (Figure 2).

How does stress impact health?

There is no relationship between "How stressed would you rate yourself?" and "How would you describe your health?" Health was measured by labels excellent, good, fair, or poor and stressed was again measured using a Likert scale. The analysis resulted

with a p-value of 0.243 which is > 0.05 meaning that there is no statistical significance between the variables.

What are students' perceptions of safety?

The analysis of the relationship between "Do you feel safe in your housing?" and "How stressed would you rate yourself?" proved to be not statistically significant with a p-value of 0.716 > 0.05 (Figure 4). Most of the participants responded that they did feel safe in their housing (Table 7).

Another cross-tab analysis was performed comparing "How would you rate the level of crime at EKU?" with "How stressed would you rate yourself?" Stress was again measured on a scale from one (not stressed) to five (very stressed); while level of crime was measured by ratings of high, moderate, or low; majority of participants reported between low and moderate rates of crime (Table 12). The results were not statistically significant with a p-value of 0.814 > 0.05 (Figure 6).

Is there a correlation between perception and health status?

The questions "Would you describe your overall perception of EKU's campus to be positive or negative?" and "How would you describe your health?" were compared and found a p-value of 0.545 > 0.05 (Figure 1). 96.38% of participants reported an overall positive perception (Table 27).

Do dorms farther away from the center of campus equal poorer health statuses?

There was not a relationship between "How long does it take you to get to class from your dorm?" compared to "How would you describe your health?" Time was measured by five-minute increments; zero to five, five to ten, ten to fifteen, and fifteen to

twenty minutes. Health was measured by excellent, good, fair, or poor. The results found a p-value of 0.295 > 0.05 which is not statistically significant (Figure 14).

Discussion/Conclusion

The results from the cross-tab analysis did not prove or disprove the central argument and subsequent research questions. According to the data of this study there is enough evidence to confirm there is not a relationship between a negative perception of built environment and poor health outcomes for college students. However, the study did point out common themes among student concerns and there is explanation in the literature reviewed for this thesis.

Although the results from the cross-tab analysis were not significant (p-value of > .05) in regard to the research questions there are implications for the future of the health status of college students at Eastern Kentucky University. Eastern Kentucky University be mindful of student concerns and work to address these issues to prevent poor health outcomes and maintain students overall positive perception of the college. More research needs to occur in order to provide clear evidence of a relationship between negative perceptions of built environment and its effect on health outcomes. In doing this research, information regarding the social determinants of health will be more available and changes will be made to reduce health disparities among multiple populations.

This study did compare to a study by Lightfoot & Blanchard (2011) in which their studies reported that 50-60% of college students do not engage in enough physical activity. According to my survey, 48% of participants exercised less than 2 days per week. Another component of the study that was similar to this study was that there were high reports of crime at night and high traffic rates. In my study, students were concerned

about walking at night along with crosswalk safety which would inhibit physical activity. Although my study did not focus on gender differences, a study conducted by Reed & Ainsworth (2007) discovered that similarly to my own, majority of the participants reported a high presence of university sidewalks. However, the perception of safety was different between the genders with 39% of females feeling safe compared to 49% of males, while again my study did not focus on gender differences majority of participants did report a perception of low crime on campus. My study also compared to a study by Quinn, El Ghaziri, Mangano, & Thind (2019) with participants reporting that accessibility, use of drugs and substances, and sexual assault were barriers to wellness on campus. Other similarities were regarding student concerns including; scarcity of health food options, food for special diets, and limited variety, with low quality food.

One explanation for the overall perception of Eastern Kentucky University's campus is that majority of the participants were upperclassmen. Since the participants had been on campus for more than a year their perception of the campus may be influenced by their comfortability with knowing the location well. Chang et al. (2017), stated, "variation in the timing and intensity of the exposures resulting in variable induction times between exposure and disease outcome as individuals move from place to place and neighborhoods evolve over time" meaning that an individual that time did play a factor in whether individuals perceived their risk of exposure to various diseases. Smith et al. (2017) also reported that "Often, changes in the built environment, experienced either by changing residential location or by intervention in a familiar setting, do not occur in isolation," implying that while it is not the only factor, changes in the built environment did impact physical activity for residents over the years. Place attachment is

the emotional bond between person and place. Place attachment is influenced by an individual's personal experiences which can then influence a person's perception. According to Rollero & De Piccoli (2010), "A strong bond with a place can also favour positive images in terms of pleasantness, healthy, and safeness" it continues to explain that, "Persons highly place attached, in fact, can perceive it as less polluted than people less affectively linked or less risk," which again could explain why the upper classmen reported a positive overall perception. The idea of place attachment is connected to sense of community. Gattino, De Piccoli, Fassio, &Rollero (2013) continued their research to encompass sense of community and found that sense of community positively affected quality of life except for social circumstances. The sense of community stemmed from an individual's place attachment, where the individual felt secure enough to make connections and depend on their community members. Overall, the length of residency, place attachment, and sense of community for upper classmen most likely influenced their perception to be more positive than negative.

Another explanation for why most students reported good health was that my sample was of college students obtaining a higher education. According to the CDC, "People with higher levels of education and higher income have lower rates of many chronic diseases compared to those with less education and lower income levels, according to Health, United States, 2011 – the government's annual comprehensive report on Americans' health." Meaning that since they are educated individuals, they may be educated to make better decisions concerning their health. A study performed in urban Chin by Hua (2014) found "… positive health effects of higher education attainment in urban China," with most of the college participants rating their health as "medium

healthy" similar to what occurred in my study. Hua (2014) also mentions how health improves from high school to college as high school students feel pressure to perform well on exams which can negatively impact health. However, once college is attained students can focus on other aspects of life other than stress. According to Afshar, Foroughan, Vedadhir, & Tabatabei (2017), "According to person-environment theories of aging, an individual living in an environment appropriate to their physical, cognitive, and emotional needs has a higher life satisfaction and wellbeing." College is the environment for young adults that meets their physical, cognitive, and emotional needs which would explain why students reported their health as overall good since their needs are being satisfied by being at college. Prus (2011) stated, "Americans with less than high school education were 4.08 times and those with high school education were 2.43 times as likely to rate their health as poor relative to excellent compared to their counterparts with a postsecondary education." Concluding that a potential influence in the data was that the student's level of education may have lend itself to better health outcomes.

An idea for the data results is that older students have a better perception of risk and therefore due not engage in negative behaviors since they do not see the benefit. According to Bonem, Ellsworth, and Gonzalez (2015), "Our studies showed that compared with young adults, older adults tend to see more risk in behaviors in health and ethical domains but less risk in behaviors from the social domain. A similar pattern occurred for participants' intentions of engaging in the risky behaviors." Since upper classmen are older, they may perceive risk more often but choose to not engage in the risk. The avoidance of risk may lend themselves to perceive the campus as safer since they are unaware of the potential risks.

Interestingly, gender may have influenced the data. According to Valson & Kutty (2018), "…gender roles/activities and norms/values cause women and men to occupy different physical as well as social spaces" meaning that gender should be examined further to see if there are significant differences between genders regarding perception of built environment as well as safety. In the study by Valson & Kitty (2018) "Both perceived and objective measurement of built environment brought out gender differences in the relationship between built environment and mental health/physical activity/obesity," which may have better outlined the results of this study and the perceptions of the students. A study by Rhodes & Pivik (2011) concerning age and gender differences perception of risky driving found, "Male drivers and teen drivers were consistently more likely to report both enjoying these risky behaviors and perceiving them as less risky than their female and older counterparts," again the difference in gender may have provided a better statistical significance in relation to perception of safety for college students as multiple studies have reported this difference.

The major conclusion from the results of this study is that students are concerned about Eastern Kentucky University's built environment including crime, parking, walking at night, and cleanliness. As well as that student's health concerns are overwhelming related to eating healthy and access to nutritious foods.

Limitations

The study has some limitations within which the findings need to be interpreted carefully. The main limitation was the wording for some of the questions of the survey may have caused confusion within the participant; particularly rating questions where the rating of 1 was given the label as best and 5 given the label as worst. Also, the questions

of the survey were at times not specific enough to the proposed study. For example, the question “Would you describe your overall perception of EKU's campus to be positive or negative?” should have been specifically about EKU’s built environment. Another limitation was this was a cross-sectional study with one population at one point in time. Perception may change over time as will Eastern Kentucky University’s built environment as improvements are made. Last, the results of this study many not be completely generalizable due to the sample being a convenience sample from one college.

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Appendix

Figure 1: Overall Perception x Reported Health

Would you describe your overall perception of EKU's campus to be positive or negative? * How would you describe your health? Crosstabulation							
			How would you describe your health?				Total
			Excellent	Good	Fair	Poor	
Would you describe your overall perception of EKU's campus to be positive or negative?	Positive	Count	35	82	13	2	132
		% within Would you describe your overall perception of EKU's campus to be positive or negative?	26.5%	62.1 %	9.8%	1.5%	100.0%
	Negative	Count	0	4	1	0	5

		% within Would you describe your overall perception of EKU's campus to be positive or negative?	0.0%	80.0 %	20.0%	0.0%	100.0%
Total		Count	35	86	14	2	137
		% within Would you describe your overall perception of EKU's campus to be positive or negative?	25.5%	62.8 %	10.2%	1.5%	100.0%

	Value	p-value
Pearson Chi-Square	2.133[a]	.545

Figure 2: EKU Sidewalks x Stress

Are EKU's sidewalks connected and in good condition? * How stressed would you rate yourself? Crosstabulation							
			How stressed would you rate yourself?				
			1 (Not stressed)	2	3	4	5 (Very stressed)	Total
Are EKU's sidewalks connected and in good condition?	Yes	Count	5	22	23	36	19	105
		% within Are EKU's sidewalks connected and in good condition?	4.8%	21.0 %	21.9 %	34.3 %	18.1%	100.0%
	No	Count	0	4	11	9	7	31
		% within Are EKU's	0.0%	12.9 %	35.5 %	29.0 %	22.6%	100.0%

		sidewalks connected and in good condition?						
Total		Count	5	26	34	45	26	136
		% within Are EKU's sidewalks connected and in good condition?	3.7%	19.1 %	25.0 %	33.1 %	19.1%	100.0%

	Value	p-value
Pearson Chi-Square	4.504[a]	.342

Figure 3: Perception x Stress

	Would you describe your overall perception of EKU's campus to be positive or negative? * How stressed would you rate yourself? Crosstabulation								
				How stressed would you rate yourself?					
				1 (Not stressed)	2	3	4	5 (Very stressed)	Total
	Would you describe your overall perception of EKU's campus to be positive	Positive	Count	5	26	31	45	26	133
			% within Would you describe your overall perception of EKU's campus to be positive or negative?	3.8%	19.5 %	23.3 %	33.8 %	19.5%	100.0%
			Count	0	0	3	0	2	5

	or negative?	Negative	% within Would you describe your overall perception of EKU's campus to be positive or negative?	0.0%	0.0%	60.0%	0.0%	40.0%	100.0%
	Total		Count	5	26	34	45	28	138
			% within Would you describe your overall perception of EKU's campus to be positive or negative?	3.6%	18.8%	24.6%	32.6%	20.3%	100.0%

	Value	p-value
Pearson Chi-Square	6.484[a]	.166

Figure 4: Safety x Stress

Do you feel safe in your housing? * How stressed would you rate yourself? Crosstabulation								
			How stressed would you rate yourself?					
			1 (Not stressed)	2	3	4	5 (Very stressed)	Total
Do you feel safe in your housing?	Yes	Count	5	26	34	41	26	132
		% within Do you feel safe in your housing?	3.8%	19.7%	25.8%	31.1%	19.7%	100%
	No	Count	0	0	0	1	1	2

		% within Do you feel safe in your housing?	0.0%	0.0%	0.0%	50.0%	50.0%	100 %
Total		Count	5	26	34	42	27	134
		% within Do you feel safe in your housing?	3.7%	19.4%	25.4%	31.3%	20.1%	100 %

	Value	p-value
Pearson Chi-Square	2.108[a]	.716

Figure 5: Time x Stress

How often does it take you to get to class from your dorm? * How stressed would you rate yourself? Crosstabulation								
			How stressed would you rate yourself?					
			1 (Not stressed)	2	3	4	5 (Very stressed)	Total
How often does it take you to get to class from your dorm?	Less than 5 minutes	Count	0	1	1	2	1	5
		% within How often does it take you to get to class from your dorm?	0.0%	20.0 %	20.0 %	40.0 %	20.0%	100.0 %
	5-10 minutes	Count	2	4	6	15	6	33
		% within How often does it take you to get to class from your dorm?	6.1%	12.1 %	18.2 %	45.5 %	18.2%	100.0 %
		Count	1	4	8	6	4	23

	10-15 minutes	% within How often does it take you to get to class from your dorm?	4.3%	17.4%	34.8%	26.1%	17.4%	100.0%
	15-20 minutes	Count	0	1	0	1	0	2
		% within How often does it take you to get to class from your dorm?	0.0%	50.0%	0.0%	50.0%	0.0%	100.0%
Total		Count	3	10	15	24	11	63
		% within How often does it take you to get to class from your dorm?	4.8%	15.9%	23.8%	38.1%	17.5%	100.0%

	Value	p-value
Pearson Chi-Square	6.211[a]	.905

Figure 6: Level of Crime x Stress

How would you rate the level of crime at EKU? * How stressed would you rate yourself? Crosstabulation								
			How stressed would you rate yourself?					
			1 (Not stressed)	2	3	4	5 (Very stressed)	Total
How would you rate the level of crime at EKU?	High crime rate	Count	0	0	0	1	1	2
		% within How would you rate the level of crime at EKU?	0.0%	0.0%	0.0%	50.0%	50.0%	100.0%
		Count	1	8	12	10	10	41

	Moderate crime rate	% within How would you rate the level of crime at EKU?	2.4%	19.5 %	29.3 %	24.4 %	24.4%	100.0 %
	Low crime rate	Count	4	18	22	34	17	95
		% within How would you rate the level of crime at EKU?	4.2%	18.9 %	23.2 %	35.8 %	17.9%	100.0 %
Total		Count	5	26	34	45	28	138
		% within How would you rate the level of crime at EKU?	3.6%	18.8 %	24.6 %	32.6 %	20.3%	100.0 %

	Value	p-value
Pearson Chi-Square	4.451[a]	.814

Figure 7: Race/ethnicity x Level of Crime

What race/ethnicity best describes you? * How would you rate the level of crime at EKU? Crosstabulation						
			How would you rate the level of crime at EKU?			
			High crime rate	Moderate crime rate	Low crime rate	Total
What race/ethnicity best describes you?	Asian/Pacific Islander	Count	0	1	3	4
		% within What race/ethnicity best describes you?	0.0%	25.0%	75.0%	100.0 %
		Count	0	2	9	11

	Black or African American	% within What race/ethnicity best describes you?	0.0%	18.2%	81.8%	100.0 %
	Hispanic	Count	0	0	2	2
		% within What race/ethnicity best describes you?	0.0%	0.0%	100.0%	100.0 %
	White/Caucasian	Count	2	34	80	116
		% within What race/ethnicity best describes you?	1.7%	29.3%	69.0%	100.0 %
Total		Count	2	37	94	133
		% within What race/ethnicity best describes you?	1.5%	27.8%	70.7%	100.0 %

	Value	p-value
Pearson Chi-Square	1.816[a]	.936

Figure 8: Gender x Level of Crime

What is your gender? * How would you rate the level of crime at EKU? Crosstabulation						
			How would you rate the level of crime at EKU?			
			High crime rate	Moderate crime rate	Low crime rate	Total
What is your gender?	Female	Count	2	21	55	78
		% within What is your gender?	2.6%	26.9%	70.5%	100.0%

	Male	Count	0	20	40	60
		% within What is your gender?	0.0%	33.3%	66.7%	100.0%
Total		Count	2	41	95	138
		% within What is your gender?	1.4%	29.7%	68.8%	100.0%

	Value	p-value
Pearson Chi-Square	2.080[a]	.353

Figure 9: Grade Level x Level of Crime

What grade are you currently in? * How would you rate the level of crime at EKU? Crosstabulation						
			How would you rate the level of crime at EKU?			
			High crime rate	Moderate crime rate	Low crime rate	Total
What grade are you currently in?	Freshman (1st year student)	Count	0	2	6	8
		% within What grade are you currently in?	0.0%	25.0%	75.0%	100.0 %
	Sophomore (2nd year student)	Count	1	12	28	41
		% within What grade are you currently in?	2.4%	29.3%	68.3%	100.0 %
	Junior (3rd year student)	Count	0	8	30	38
		% within What grade are you currently in?	0.0%	21.1%	78.9%	100.0 %
		Count	1	18	31	50

	Senior (4th year student)	% within What grade are you currently in?	2.0%	36.0%	62.0%	100.0 %
Total		Count	2	40	95	137
		% within What grade are you currently in?	1.5%	29.2%	69.3%	100.0 %

	Value	p-value
Pearson Chi-Square	3.683[a]	.720

Figure 10: Race/ethnicity x Health

What race/ethnicity best describes you? * How would you describe your health? Crosstabulation							
			How would you describe your health?				
			Excellent	Good	Fair	Poor	Total
What race/ethnicity best describes you?	Asian/Pacific Islander	Count	1	3	0	0	4
		% within What race/ethnicity best describes you?	25.0%	75.0%	0.0%	0.0%	100.0 %
	Black or African American	Count	2	8	1	0	11
		% within What race/ethnicity best describes you?	18.2%	72.7%	9.1%	0.0%	100.0 %
	Hispanic	Count	0	2	0	0	2
		% within What race/ethnicity best describes you?	0.0%	100.0 %	0.0%	0.0%	100.0 %

	White/Caucasian	Count	30	70	13	2	115
		% within What race/ethnicity best describes you?	26.1%	60.9%	11.3%	1.7%	100.0%
Total		Count	33	83	14	2	132
		% within What race/ethnicity best describes you?	25.0%	62.9%	10.6%	1.5%	100.0%

	Value	p-value
Pearson Chi-Square	2.543[a]	.980

Figure 11: Gender x Health

What is your gender? * How would you describe your health? Crosstabulation

			How would you describe your health?				
			Excellent	Good	Fair	Poor	Total
What is your gender?	Female	Count	18	46	12	1	77
		% within What is your gender?	23.4%	59.7%	15.6%	1.3%	100.0%
	Male	Count	17	40	2	1	60
		% within What is your gender?	28.3%	66.7%	3.3%	1.7%	100.0%
Total		Count	35	86	14	2	137
		% within What is your gender?	25.5%	62.8%	10.2%	1.5%	100.0%

	Value	p-value
Pearson Chi-Square	5.566[a]	.135

Figure 12: Grade Level x Health

What grade are you currently in? * How would you describe your health? Crosstabulation

			How would you describe your health?				
			Excellent	Good	Fair	Poor	Total
What grade are you currently in?	Freshman (1st year student)	Count	1	7	0	0	8
		% within What grade are you currently in?	12.5%	87.5%	0.0%	0.0%	100.0%
	Sophomore (2nd year student)	Count	13	20	7	0	40
		% within What grade are you currently in?	32.5%	50.0%	17.5%	0.0%	100.0%
	Junior (3rd year student)	Count	8	23	6	1	38
		% within What grade are you currently in?	21.1%	60.5%	15.8%	2.6%	100.0%
	Senior (4th year student)	Count	13	35	1	1	50
		% within What grade are you currently in?	26.0%	70.0%	2.0%	2.0%	100.0%
Total		Count	35	85	14	2	136
		% within What grade are you currently in?	25.7%	62.5%	10.3%	1.5%	100.0%

	Value	p-value
Pearson Chi-Square	12.301[a]	.197

Figure 13: Off-Campus x Health

If you live off-campus, how long does it take you to get to EKU? * How would you describe your health? Crosstabulation							
			How would you describe your health?				Total
			Excellent	Good	Fair	Poor	
If you live off-campus, how long does it take you to get to EKU?	less than 10 minutes	Count	13	32	1	0	46
		% within If you live off-campus, how long does it take you to get to EKU?	28.3%	69.6%	2.2%	0.0%	100.0%
	10-20 minutes	Count	4	9	1	0	14
		% within If you live off-campus, how long does it take you to get to EKU?	28.6%	64.3%	7.1%	0.0%	100.0%
	20-30 minutes	Count	1	4	1	0	6
		% within If you live off-campus, how long does it take you to get to EKU?	16.7%	66.7%	16.7%	0.0%	100.0%
	More than 30 minutes	Count	4	6	2	1	13
		% within If you live off-campus, how long does it take you to get to EKU?	30.8%	46.2%	15.4%	7.7%	100.0%
Total		Count	22	51	5	1	79

	% within If you live off-campus, how long does it take you to get to EKU?	27.8%	64.6%	6.3%	1.3%	100.0%

	Value	p-value
Pearson Chi-Square	10.224[a]	.333

Figure 14: On-Campus x Health

How often does it take you to get to class from your dorm? * How would you describe your health? Crosstabulation						
			How would you describe your health?			
			Excellent	Good	Fair	Poor	Total
How often does it take you to get to class from your dorm?	Less than 5 minutes	Count	3	1	0	0	4
		% within How often does it take you to get to class from your dorm?	75.0%	25.0%	0.0%	0.0%	100.0%
	5-10 minutes	Count	6	22	5	0	33
		% within How often does it take you to get to class from your dorm?	18.2%	66.7%	15.2%	0.0%	100.0%
	10-15 minutes	Count	5	14	3	1	23
		% within How often does it take you to get to class from your dorm?	21.7%	60.9%	13.0%	4.3%	100.0%
	15-20 minutes	Count	0	1	1	0	2

		% within How often does it take you to get to class from your dorm?	0.0%	50.0 %	50.0 %	0.0%	100.0 %
Total		Count	14	38	9	1	62
		% within How often does it take you to get to class from your dorm?	22.6%	61.3 %	14.5 %	1.6%	100.0 %

	Value	p-value
Pearson Chi-Square	10.721[a]	.295

Figure 15: Stress x Health

How stressed would you rate yourself? * How would you describe your health? Crosstabulation							
			How would you describe your health?				
			Excellent	Good	Fair	Poor	Total
How stressed would you rate yourself?	1 (Not stressed)	Count	4	1	0	0	5
		% within How would you describe your health?	11.4%	1.2%	0.0%	0.0%	3.6%
	2	Count	6	17	2	1	26
		% within How would you describe your health?	17.1%	19.8%	14.3%	50.0%	19.0%
	3	Count	7	24	1	1	33
		% within How would you describe your health?	20.0%	27.9%	7.1%	50.0%	24.1%
	4	Count	11	27	7	0	45
		% within How would you describe your health?	31.4%	31.4%	50.0%	0.0%	32.8%
	5 (Very stressed)	Count	7	17	4	0	28
		% within How would	20.0%	19.8%	28.6%	0.0%	20.4%

		you describe your health?					
Total	Count	35	86	14	2	137	
	% within How would you describe your health?	100.0%	100.0%	100.0%	100.0%	100.0%	

	Value	p-value
Pearson Chi-Square	14.973[a]	.243

Table 1: Race/Ethnicity

Race/Ethnicity	**Numbers**
American Indian or Alaskan Native	0
Asian/Pacific Islander	4
Black or African American	11
Hispanic	2
White/Caucasian	116
Multiple Ethnicity/Other	5

Table 2: Gender

Gender	**Numbers (Percentage)**
Female	78 (56.52%)
Male	60 (43.48%)

Table 3: Grade Level

Grade Level	**Number (Percentage)**
Freshman (1st year student)	8 (5.84%)
Sophomore (2nd year student)	41 (29.93%)
Junior (3rd year student)	38 (27.74%)
Senior (4th year student)	50 (36.50%)

Table 4: Living Situation

Housing	**Number (Percentage)**
Off-Campus	81 (58.70%)
Burnam	1 (0.72%)
Clay	4 (2.90%)

Grand Campus	14 (10.14%)
Keene	4 (2.90%)
Martin	9 (6.52%)
McGregor	2 (1.45%)
North	7 (5.07%)
Palmer	1 (0.72%)
South	11 (7.97%)
Sullivan	0 (0.00%)
Telford	0 (0.00%)
Walters	4 (2.90%)

Table 5: Off-Campus Drive to EKU

Time Driving	**Number (Percentage)**
less than 10 minutes	46 (58.23%)
10-20 minutes	14 (17.72%)
20-30 minutes	6 (7.59%)
More than 30 minutes	13 (16.46%)

Table 6: EKU Sidewalks

EKU sidewalks connected and in good condition?	**Number (Percentage)**
Yes	105 (77.21%)
No	31 (22.79%)

Table 7: Safety in Housing

Do you feel safe in your housing?	**Number (Percentage)**
Yes	132 (98.51%)
No	2 (1.49%)

Table 8: Location of Exercising

Where do you exercise?	**Number (Percentage)**
Home	19 (14.07%)
Dorm	7 (5.19%)
Campus Gym	74 (54.81%)
Off-campus Gym	22 (16.30%)
Other (please specify)	13 (9.63%)

Table 9: Exercise Amount

How often do you exercise?	Number (Percentage)
3-5 days a week	52 (37.68%)
1-2 days a week	49 (35.51%)
Never	18 (13.04%)
Everyday	19 (13.77%)

Table 10: Participation in Clubs and Sports

Do you participate in any clubs or sports?	Number (Percentage)
Clubs	38 (27.54%)
Sports	20 (14.49%)
Both	10 (7.25%)
None	70 (50.72%)

Table 11: Student Concerns from a List

Concerns	Number (Percentage)
Air pollution	42 (31.82%)
Cigarette smoke	48 (36.36%)
Motor Vehicle Accidents on Campus	36 (27.27%)
Drugs on Campus	34 (25.76%)
Safety walking on campus	44 (33.33%)
Accessibility of resources	20 (15.15%)
Cleanliness of campus	49 (37.12%)
Crime in the area	59 (44.70%)
Police relations	9 (6.82%)
Nutrition	41 (31.06%)

Table 12: Level of Crime

How would you rate the level of crime at EKU?	Number (Percentage)
High crime rate	2 (1.45%)
Moderate crime rate	41 (29.71%)
Low crime rate	95 (68.84%)

Table 13: Upper Classmen and Moving

If upper classmen: have you moved since your first year?	**Number (Percentage)**
No	45 (41.67%)
Yes (please specify why)	63 (8.33%)

Table 13a: Reasons of Moving

Categories	**Number (Percentage)**
Cheaper Off-Campus Housing	23 (16.67%)
Roommate Issues	4 (0.03%)
Upgraded Dorms	7 (0.05%)
Cleanliness Issues	5 (0.04%)

Table 14: Appearance (Clean – Dirty)

Clean	2	3	4	Dirty
30 (21.90%)	54 (39.42%)	41 (29.93%)	8 (5.84%)	4 (2.92%)

Table 15: Appearance (New-Outdated)

Brand New	2	3	4	Outdated
11 (8.21%)	31 (23.13%)	64 (47.76%)	23 (17.16%)	5 (3.73%)

Table 16: Appearance (Appropriate-Inappropriate)

Appropriate	2	3	4	Inappropriate
44 (32.12%)	53 (38.69%)	31 (22.63%)	6 (4.38%)	3 (2.19%)

Table 17: Stress

How stressed would you rate yourself?	**Number (Percentage)**
1 (Not stressed)	5 (3.62%)
2	26 (18.84%)
3	34 (24.64%)
4	45 (32.61%)
5 (Very stressed)	28 (20.29%)

Table 18: Self-reported Health?

How would you describe your health?	**Number (Percentage)**
Excellent	35 (25.55%)

Good	86 (62.77%)
Fair	14 (10.22%)
Poor	2 (1.46%)

Table 19: Student Concerns

Categories	# of Participants
Walking at night	17
Parking	9
Crime	9
Safety at Crosswalks	8
Construction	7
Drugs and Alcohol	7
Cleanliness	6
Safety	6
Air Quality	5
Car Accidents	4
Kidnappings	3
Smells	3
Access to Healthy Foods	3
Tuition Increase/Finances	3
Accessibility to Resources	3
Outdated Buildings	2
Instability of Major Programs	1
Graduating	1
Student's Mental Health	1
Lack of Student Involvement	1

Table 20: Dining Hall Quality

best quality	2	3	4	worst quality
20 (14.60%)	45 (32.85%)	35 (25.55%)	26 (18.98%)	11 (8.03%)

Table 21: Campus Gym Quality

best quality	2	3	4	worst quality
18 (13.74%)	45 (34.35%)	34 (25.95%)	24 (18.32%)	10 (7.63%)

Table 22: Library Quality

best quality	2	3	4	worst quality
27 (20.00%)	44 (32.59%)	30 (22.22%)	23 (17.04%)	11 (8.15%)

Table 23: Student Health Center Quality

best quality	2	3	4	worst quality
13 (10.08%)	42 (32.56%)	41 (31.78%)	22 (17.05%)	11 (8.53%)

Table 24: Student Center Quality

best quality	2	3	4	worst quality
10 (7.63%)	46 (35.11%)	47 (35.88%)	14 (10.69%)	14 (10.69%)

Table 25: Class to Dorm

How long does it take you to get to class from your dorm?	**Number (Percentage)**
Less than 5 minutes	5 (7.94%)
5-10 minutes	33 (52.38%)
10-15 minutes	23 (36.51%)
15-20 minutes	2 (3.17%)

Table 26: Student Health Concerns

Categories	**# of Participants**
Nutrition/Eating Healthy	28
Chronic disease, communicable diseases	15
Access to Healthy Foods	7
Cleanliness (mold, dorms, campus)	7
Weight/Appearance	6
Anxiety/Mental Health/Stress	6
Air Quality	5
Smoke	5
Exercise	4
Injuries	4
Sleep	2
Dorm Life	2

Table 27: Overall Perception

Would you describe your overall perception of EKU's campus to be positive or negative?	**Number (Percentage)**
Positive	133 (96.38%)
Negative	5 (3.62%)

Informed Consent Form

Eastern Kentucky University Institutional Review Board

Informed Consent Cover Text for Exempt Studies

Research with human subjects, regardless of the review level, requires that researchers provide information about the study and allow potential participants to make an informed decision about whether they want to voluntarily participate. When a study is approved for exemption, the greatest risk to participants is often a violation of confidentiality. To reduce this risk, having participants sign a formal consent form for studies that would otherwise be anonymous is not necessary. Instead, participants can remain anonymous through the use of cover text provided as an introductory screen to an online survey or activity or a cover page or introduction in a printed survey or activity. The template below is provided for use only with studies that are eligible for exemption. Please complete the highlighted sections based on the instructions in brackets and copy and paste the text at the beginning of your data collection instrument.

Do Negative Perceptions of Students' Built Environment Affect Their Health Status?

You are being invited to take part in a research study on the relationship between built environment and one's health. This study is being conducted by Karissa Hunt, undergraduate researcher at Eastern Kentucky University.

If you decide to participate in the study, you will be asked to complete a survey in printed form. Your participation is expected to take no more than 30 minutes.

This study is anonymous. You will not be asked to provide your name or other identifying information as part of the study. No one, not even members of the research team, will know that the information you give came from you. Your information will be combined with information from other people taking part in the study. When we write up the results of the study, we will write about this combined information.

If you decide to take part in the study, it should be because you really want to volunteer. You will not lose any benefits or rights you would normally have if you choose not to volunteer. You can stop at any time during the study and still keep the benefits and rights you had before volunteering.

This study has been reviewed and approved for exemption by the Institutional Review Board at Eastern Kentucky University as research protocol number [add protocol number from final approval]. If you have any questions about the study, please contact Karissa Hunt at Karissa_hunt22@mymail.eku.edu If you have questions about your rights as a research volunteer, please contact the Division of Sponsored Programs at Eastern Kentucky University by calling 859-622-3636.

By completing the activity that begins on the following page, you agree that you (1) are at least 18 years of age; (2) have read and understand the information above; and (3) voluntarily agree to participate in this study.

Survey Instrument

Do Negative Perceptions of Students' Built Environment Affect Their Health Status?

This survey is confidential, please do not write your name or anything that will identify you on this paper. If you wish to not participate in this survey, please do not fill anything out and simply turn the paper over. There are no consequences for not participating in this survey. Please read each question carefully and only answer questions you feel comfortable answering.

Built environment is defined as the human-made surroundings in which people live, work, and recreate on a day-to-day basis.

1. What race/ethnicity best describes you?

(Please only choose one)

American Indian or Alaskan Native

Asian/ Pacific Islander

Black or African American

Hispanic

White/Caucasian

Multiple ethnicity / Other (please specify)

2. What is your gender?

Female

Male

Other

Prefer not to say

3. What grade are you currently in?

Freshman (1st year student)

Sophomore (2nd year student)

Junior (3rd year student)

Senior (4th year student)

4. Where do you currently live?

Off-Campus

Burnam

Clay

Grand Campus

Keene

Martin

McGregor

North

Palmer

South

Sullivan

Telford

Walters

5. If you live off-campus, how long does it take you to get to EKU?

Less than 10 minutes

10-20 minutes

20-30 minutes

More than 30 minutes

6. Are EKU's sidewalks connected and in good condition?

Yes

No

7. Do you feel safe in your housing?

Yes

No

If you feel unsafe in your campus environment please see your in-hall staff or contact EKU Police at (859)622-1111.

8. Where do you exercise?

Home

Dorm

Campus Gym

Off-campus Gym

Other (please specify)

9. How often do you exercise?

Everyday

3-5 days a week

1-2 days a week

Never

10. Do you participate in any clubs or sports?

Clubs

Sports

Both

None

11. Please circle the three things that concern you the most from the list below:

air pollution, cigarette smoke, motor vehicle accidents on campus, drugs on campus, safety walking on campus, accessibility of resources, cleanliness of the campus, crime in the area, police relations, and nutrition.

12. How would you rate the level of crime at Eastern Kentucky University?

High crime rate

Moderate crime rate

Low crime rate

13. If upper classmen: have you moved since your first year?

Yes, please specify why.

No

14. How would you rate the appearance of your environment?

1 2 3 4 5

Clean Dirty

1 2 3 4 5

Brand New Outdated

1 2 3 4 5

Appropriate Inappropriate

15. How stressed would you rate yourself?

1 2 3 4 5

Not Stressed Very Stressed

16. How would you describe your health?

Excellent Good Fair Poor

17. Which problem on campus worries you most?

18. Please rate the dining hall, gym, library, and student center, and health center on quality

(1 being best overall quality, 5 being worst quality).

Dining Hall:

1 2 3 4 5

Gym

1 2 3 4 5

Library

1 2 3 4 5

Student Health Center

1 2 3 4 5

Student Center

1 2 3 4 5

19. How long does it take you to get to class from your dorm?

Less than 5 minutes

5 – 10 minutes

10 – 15 minutes

15 – 20 minutes

20. What is your biggest health concern?

21. Would you describe your overall perception of EKU's campus to be positive or negative?

Positive

Negative