Does Risky Driving Relate to Other Risky Behaviors Among Young Adults?

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Executive Abstract

The purpose of this research was to investigate behavioral choices among young adults and the interrelationships among these choices. Behaviors defined as "risky" were those which were responsible for negative outcomes and the cause of bodily harm.

The researcher selected subjects from three buildings on and around the Morgan State University campus. Subjects were asked to participate in a study concerning behavior choices among young adults. Results indicated that correlations were statistically significant for patterns of reckless driving, drinking, and sexual behavior. The study supported relationships between risky driving and alcohol use, but did not relate to sexual behavior.

Four studies concerning the behavior of young adults were briefly summarized. Tonkin (1987) studied homicides and non-vehicular accidents in adolescents. Alcohol and drugs were factors in all forms of injury-related events. Tonkin indicated that vehicular crashes were the leading cause of death among adolescents and accounted for most of the rise in mortality. Injury situations concerning most young-driver crashes occurred during late hours and were commonly alcohol-related. Also affecting young-driver accidents was a change in the age to receive a license. Tonkin also found that most young adults aged 16-19 were at a high risk for fatal and/or serious-injury motor vehicle crashes, due to the way young adults operate their vehicles. For example,...running yellow lights.

Irwin (1990) indicated that patterns of behaviors among young adults moved to produce negative health outcomes in their lives. Behaviors such as vehicle use, sexual activity, and substance use was defined as risk taking. Risk taking includes only voluntary behaviors in which the outcomes remained uncertain with the possibility of a negative health outcome. Young people

with limited or no experience engage in behaviors with anticipation of benefit and without understanding the immediate or long-term consequences of their actions. The author also found that sexual behavior, substance use, and vehicular use were interrelated and the onset of risk behaviors was similar. Intention to engage in a behavior was one of the most powerful predictors of initiation.

Dejoy (1992) indicated that various risk-taking behaviors were mediated by young adults. Low levels of perceived risk were associated with riskier driving. According to Dejoy, males were more likely than females to report taking risks for fun while driving. Males were more optimistic than females when judging the risk of driving situations that involved quick driving reflexes or vehicle-handling skills. Males also perceived behavior such as tailgating as less serious and less likely to result in a vehicular crash.

Gerrard, Gibbons, Benthin, and Hessling (1996) indicated that the last two decades have been associated with increases in risks involving smoking, drinking, driving, and unprotected sex. According to the authors, adolescents were aware of the risks they were taking, but that awareness did not change their engagement in risky behaviors. The authors also found that young adults who engage in more risky sexual behavior estimated their likelihood of contracting HIV as lower than those who engage in fewer risk behaviors. Young adults also convinced themselves that their peers were also taking the same risks, and avoided thinking about the dangers associated with their behavior.

The present study hypothesized that in comparison with their peers, young adults would believe they would be likely to resist negative outcomes regardless of their behavior. The study also hypothesized that risky driving would correlate with risky behaviors such as alcohol use and

sexual behavior.

Students were selected from three buildings on and around the Morgan State University campus. Participating in the study were 14 males and 13 females. The LIFE MADE EASY survey was given to each subject in order to investigate the behavior choices of young adults. The survey presented five demographic questions, several questions evaluating reckless driving behaviors, drinking patterns, drinking while intoxicated (DWI), and driving under the influence (DUI), and several questions regarding sexual behavior. Subjects judged their behaviors relative to others of their age and sex.

Results from the present study indicated that subjects in this sample differed significantly from others of their age and sex on the issues of risky driving, drinking, and risky sexual behavior. Subjects also differed significantly from others of their age and sex in alcoholic beverage consumption, the likelihood of driving under the influence (DUI), and contraction of the HIV/AIDS virus or other STDs. Pearson correlations for reckless driving, patterns of drinking, and sex behaviors were significant at $p=.01$ and $p=.05$. Correlations between reckless driving, reckless driving and pattern of drinking, pattern of drinking, and sexual behaviors were at a moderate level. Multiple regression analyses were performed to evaluate predictors of reckless driving, patterns of drinking, and sexual behaviors. There were no significant predictors.

The Tonkin results supported the present study's results. Young drivers were more likely to run yellow lights and were considered reckless drivers. The Irwin results also supported the present study's results. Sexual behavior, substance use, and vehicular use were often interrelated as risky behaviors. The Dejoy results contradicted with the present study, while the Gerrard et al. results did not support the present study's results. People who engaged in risky behaviors

estimated their likelihood of contracting HIV as lower than others of their age and sex who engaged in fewer risk behaviors.

A recommendation for future research is to use more subjects to ensure better estimates of the interrelationships between sexual behaviors and risky driving. Variables such as unrealistic optimism should also be used to find whether or not those males who engaged in risky behavior were more or less optimistic than females who did not.

Does Risky Driving Relate To Other Risky Behaviors Among Young Adults

Tonkin (1987) studied the agents involved in four major categories of violence-related mortality. According to Tonkin, a number of authors have studied homicides and non-vehicular accidents in adolescents. Vehicular crashes accounted for more than half of the violent deaths in 15-19 year olds in the late 1970s and early 1980s. The role of alcohol and other drugs played in all forms of injury-related events has also been discussed among authors. Tonkin also indicated that vehicular crashes were the predominant cause of adolescent deaths and accounted for most of the rise in mortality. There has been a growing awareness that alcohol continues to be an important contributing factor in most injury situations. According to the author, anything that makes the agents of injury more available for the duration of exposure will increase the risk of injury. Societal factors also play an important role in most injury scenarios. For example, changes in the minimum legal age for purchase of alcoholic beverages have had a profound influence upon adolescent behavior. This was particularly true when the drinking age was lowered and the number of motor vehicle crashes subsequently increased. Consequently, the age has been raised. Changes in the age of licensure have also been shown to affect young driver accidents. The young driver is seen as an inexperienced, impaired driver who is involved in single-vehicle, high-speed, and late-night crashes. These events reflect a lack of knowledge, a set of impaired or poorly developed vehicle-control skills, and a sequence of social and emotional events that adults label as "party time." Adolescent lifestyles and the social climate in which these lifestyles are expressed plays an important role in injury control. An example of such would be weekends and holidays, which are traditional party times for adolescents. These youths tend to be

out and about at times when children and adults are not. The majority of serious young driver crashes occur during late hours and are usually alcohol-related incidents.

The authors also indicated that there was a general agreement that the age group of 16-19 years was the highest risk period for fatal and/or serious injury motor vehicle crashes. Young drivers may be at greater risk because of how they operate motor vehicles. There was evidence that young driver behavior was different from that of older drivers. For example, young drivers drive faster and closer to the vehicle in front of them, accept narrower gaps between vehicles, and are more likely to run yellow lights.

Risk taking was increasingly used to describe patterns of behavior which are responsible for the majority of negative health outcomes occurring in the second decade of life. Such behavioral patterns are initiated during adolescence. Irwin (1990) stated that the ability to identify adolescents who may initiate health-damaging behaviors during adolescence required a basic understanding of the mortality and morbidity patterns of the second decade of life, how adolescents interact with the environment, and the concepts adolescents refer to risk. Behaviors associated with some of the major mortalities and morbidities of adolescents share risk taking as a common themes. Risk taking behaviors can be defined as the following: only, in which the results remain uncertain with regard to negative health outcomes, and volitional, in which the results remain uncertain with the possibility of a negative health outcome. Young adults with limited or no experience engage in behaviors with anticipation of benefits and without understanding of the immediate or long-term consequences of their actions. Three behaviors fit the definition of risk taking: Sexual behavior such as having intercourse, substance use such as drinking beer, wine, or hard liquor, and motor/recreational vehicle use such as being a passenger

in a car when the driver is driving too fast, and recklessly riding a bike or skateboard. Mortality patterns and hospital discharge rates supported the importance of injuries. Motor/recreational vehicle use resulting in unintentional injuries accounted for greater than 50% of mortality during adolescence. Hospital discharge rates also indicated that traumatic injuries and substance use accounted for the two largest discharge categories, excluding pregnancy. These behaviors are initiated during early adolescence with an increased frequency from early to late adolescence, prevalent in all socioeconomic and racial/ethnic groups, and account for the majority of morbidity during adolescence (Irwin 1990). The prevalence of these three risk behaviors remained high over the past decade.

Since 1985, mortality rates between early (ages 10-14) and late adolescence (ages 15-19), increased by over 300%. Violent causes of death were responsible for this increase, with motor vehicle injuries increasing by 400%, homicide rates by 400%, and suicide rates by 600%. Male adolescents died at twice the rate of adolescent females. Gender and race were important demographic factors that influenced the cause of death.

Sexual activity increased dramatically from 1971 to the early 1980s. Irwin mentioned that in most surveys concerning 1983, 77.9% of males and 62.9% of females had experienced intercourse by 19 years of age. The percentages ran higher for Blacks (92.2% of males and 77.0% for females) and Hispanics (78.5% for males and 58.6% for females).

High rates of substance use during adolescence have been documented in national surveys since 1975. Alcohol remained the most commonly used substance. Alcohol consumption also begins early in adolescence with a mean age of 12.6 years. Daily use of alcohol in 1988 remained high at 4.2%, with 34.7% of high school seniors stating that they had five or more drinks in a row

in the previous two weeks. Males consistently reported more frequent and heavier use of alcohol by a factor of 2 to 1. Unintentional injuries are the primary cause of mortality in adolescents, accounting for 60% of the deaths in this age group. Motor vehicle injuries account for 80% of these deaths. The peak time for vehicular accidents among late adolescents occurred on weekends and late at night.

Substance use was positively correlated with early initiation of sexual behavior. Early sexual activity and ineffective contraceptive use associated with the use of alcohol or any other substances. Alcohol-related motor vehicle injuries remained the leading cause of mortality in late adolescence. Alcohol also associated with a large number of injuries involving non-motorized vehicles. Examples of non-motorized vehicles were bicycles and skateboards, drowning, falls, and fires. Four behaviors (drinking and driving, fast driving, reckless vehicle use, and drug use) were reported as remaining the same risk by greater than 50% of the sample. In addition, older and more physiologically mature adolescents perceived less risk from all the behaviors than younger and less physiologically mature adolescents.

Dejoy (1992) indicated that unwarranted optimism was a particularly strong source of bias in risk perception, affecting expectation for a variety of both positive and negative life events. Most drivers considered themselves to be safer, more skillful, and less likely to be involved in an accident in comparison with most other roadway users. This was demonstrated with younger drivers. Such drivers are more optimistic than older drivers and perceive less risk in a variety of driving behaviors and situations. To the extent that optimism does contribute to the differential accident involvement of young males and females, Dejoy found substantial gender differences on various measures of optimism. Young males did appear to take more risks while driving.

In Dejoy's study, young male and females drivers (ages 18-24) were asked to judge their relative driving safety, skill, and accident likelihood. Comparisons were made using both peers and the average motorist as reference groups. Subjects then rated 15 risky driving behaviors on four dimensions: frequency in everyday driving, seriousness, accident potential, and apprehension likelihood. Self-report driving experience and history data were also collected. Substantial optimism was evident in both sexes, but males tended to be more optimistic, especially when judging their driving skill and accident likelihood. Results indicated that males were equally optimistic with respect to the two reference groups; females tended to be less optimistic when making comparisons to the average motorist. Of males, 72% considered themselves safer than other drivers in their age and sex group, and 77% rated themselves safer then the average motorist. Males were particularly optimistic in judging their driving skill, with 93% considering themselves to be more skillful than others in either group. For accident likelihood, 75% judged their risk to be less than that of their peers; 77% rated their risk to be less than that of the average driver. The percentages of females making optimistic judgments were: 71% (safety-peer group) and 54% (safety-average driver); 75% (skill-peer group) and 69% (skill-average driver); and 62% (accident likelihood-peer group) and 54% (accident-likelihood average driver). Males were about equally optimistic in judging their driving safety across the two comparison groups (peers and the average driver). Females, however, were more optimistic when making comparisons with their own age and sex group than with the average driver.

According to Dejoy, those with poorer driving records were less optimistic in judging their driving safety. The relationship between problem driving and perceived skill, although in the same direction, was considerably less pronounced than that observed for safety. Those with

poorer driving records may have acknowledged that they were less safe. However, they seemed somewhat more reluctant to admit that they might lack likelihood relative to one's peers. Dejoy stated that young males appear to possess an exaggerated sense of their own driving skill and this may have led them to underestimate the degree of risk associated with many dangerous driving acts. Younger drivers actually considered driving to be more dangerous than did older drivers.

Most health behavior models suggest that cognition, such as perceptions of vulnerability to harm and perceptions of the cost of benefits of adopting precautions, guide decisions to engage in both risk and preventive behaviors. Gerrard, Gibbons, Benthin, and Hessling (1996), studied adolescents' reckless driving, drinking and smoking, along with their cognition about these behaviors, and assessed them in a three-year longitudinal design. Consistent with most models of health behavior, the results indicated that health cognition predict risk behaviors. The authors stated that implementation of a wide variety of health education programs over the last two decades was responsible for increases in awareness of the risks associated with smoking, drinking, driving and unprotected sex. The Center for Disease Control (1992) indicated that the prevalence of many risk behaviors among adolescents may have actually been increasing. It appeared that adolescents were aware of the risks, but this awareness did not inhibit them from engaging in the behaviors.

Gerrard et al. found that college students' perceptions of vulnerability had been shown to correlate with their actual probability of experiencing a variety of health hazards. In addition, meta-analysis of studies of vulnerability to HIV indicated that people who engage in more sexual risk behaviors have estimated their likelihood of contracting HIV as lower than people who engage in fewer risk behaviors. It appeared that young adults typically did not cope with

contradiction between their behavior and their awareness of its potential negative consequences engaging in denial. Gerrard et al. proposed that, instead, adolescents engaged in risk behaviors with contradiction by altering or manipulating their cognition about the behaviors in two specific ways. First, they convinced themselves that their peers were also taking the same risks, and, second, they avoided thinking about the dangers associated with their behavior. The authors also indicated that some people who initiate or increase risk behavior respond to their awareness of increased risk by decreasing or even ceasing the risky behavior. Other adolescents however, fall into the category of those who recognized their vulnerability but continue to engage in the behavior. The authors suggested that these two cognitive shifts, normalizing the behavior and decreasing the influence of concerns about negative consequences, result in continuation of, or even an increase in, the behavior.

Gerrard et al. results were organized into four sections. The first described the adolescents' risk behaviors, changes in those behaviors over time, and correlations between the three risk behaviors. The second reported the effect of health and safety concerns and perceived prevalence of changes in risk behaviors. The third included analyses related to these cognition changes as a function of change in risk behavior. The fourth set of analyses described increases in risk behavior which were associated with adolescents' altered cognition about their health and safety and the prevalence of these behaviors.

The results demonstrated that adolescents' perceptions of vulnerability to the negative consequences of specific risk behaviors increased as their participation in these behaviors increased. Thus, these young adults understood the relation between risk behaviors and vulnerability to negative outcomes and applied this knowledge to themselves. It appeared then,

that the reason that adolescents engage in risk behaviors in spite of their awareness of the potential consequences were not denial of risk. Instead, these adolescents engaged in cognitive manipulations that allowed them to deal with the contradiction between their behavior and their knowledge of the danger. First, those adolescents who increased their risk normalized their action by overestimating their peers' risk behaviors to a greater extent than did other adolescents. Second, they decreased the influence of health and safety concerns on their risk behaviors.

The present study investigated risky behaviors among young adults, including driving, alcohol usage, and sexual behaviors. Surveys were distributed to various students at Morgan State University, an HBCU (Historically Black College/University) and other young adults, in order to gain information on their views on risky behaviors. Behaviors counted as risky were those that were responsible for negative health outcomes and the potential to cause harm to the body and/or death.

It was hypothesized that young adults would believe they would be more likely to resist negative outcomes regardless of their behavior, in comparison with others of their age and sex. It was also hypothesized that risky driving related to other risky behaviors such as alcohol use and sexual behaviors.

Method

Subjects

For this study, the researcher polled 27 subjects, most of whom were African-American. There were fourteen males and thirteen females. The mean age was 22 years of age. There were three freshman, three sophomores, seven juniors, and fourteen seniors. Some subjects were selected from the Jenkins Behavioral Science Center, Holmes Hall, and the McKeldin Center on the Morgan State University campus, while others were selected off-campus. Since school was out of session, only pre-college and summer school college students were asked to take part in the study.

Materials

The **Life Made Easy** survey (Appendix A) was given to each of the subjects in order to study the behavior choices of young adults. The survey consisted of five general demographic questions, several questions evaluating reckless driving behaviors, and several more questions concerning sexual behaviors. Risky driving questions included driving under the influence, driving while intoxicated, speeding, and reckless driving which included tailgating, passing on the right, and not yielding the right-of-way. Alcohol related questions included topics such as knowledge of any close friends or adults who consumed beer, wine, or liquor, first age of alcohol consumption, and concern for health and safety influence according to drinking behaviors. Questions about risky sex-related behaviors included topics such as knowledge of contracting an STD or HIV, condom or contraceptive use, number of partners, anal intercourse, vaginal intercourse, oral intercourse, and experiences with STDs.

Procedures

The researcher followed a rigid protocol. Subjects were asked if they would like to participate in a study concerning behavior choices of young adults. The subjects read the consent form carefully and then agreed to take part by signing the form (Appendix B). They were then asked to fill out the survey, expected to take less than fifteen minutes. All subjects were ensured anonymity and were given a standard blue pen with which the survey was completed. Surveys were given in quiet, private places. Upon completion, subjects were asked to return their surveys in a privacy envelope.

Results

A t-test for correlated means on likelihood to drink such as likelihood to drink an alcoholic beverage in the future vs. others the same age and sex to consume an alcoholic beverage; drinking under the influence (DUI) such as likelihood to drive under the influence in the future vs. others the same age and sex to consume an alcoholic beverage; and HIV/STD such as likelihood of contracting HIV or any other STD compared to others the same age and sex vs. likelihood of others the same age and sex to contract AIDs were computed. Significant t's were found for risky driving, drinking, and risky sex behaviors. The mean and standard deviations are presented in Table 1. The t for the subject's likelihood to consume an alcoholic beverage vs. others their age and sex to consume an alcoholic beverage yielded a significant difference, t (-2.563)= p=.05. The t for driving under the influence (DUI) in the future vs. others likelihood to consume an alcoholic beverage yielded a significant difference, t (-5.903)= p=.05. The t for contracting HIV or any other STD vs. others their age and sex to contract AIDS also yielded a significant difference, t (-4.939)= p=.05. Subjects found themselves less likely to consume an alcoholic average in the future than others their age and sex. Subjects found that others their age and sex were more likely to consume an alcoholic beverage than the likelihood of the subject to drive under the influence (DUI). Subjects also found that others their age and sex were more likely to contract AIDS than the likelihood of the subject to contract HIV or any other STD.

Pearson correlations were run for reckless driving, patterns of drinking, and sex behaviors. Correlations among variables are presented in Table 2. Statistically significant correlations between speed limit and reckless driving and speed limit and running red lights were found. For reckless driving, patterns of drinking, and sex behaviors, the level of significance was p=.01 and

p=.05. Driving under the influence and driving slightly over the legal limit were correlated at p=.05. Speed limit and reckless driving were correlated at p=.05 and speed limit and running red lights were correlated at p=.01. Reckless driving and running red lights were correlated at p=.01. The pattern of drinking of close friends and close adults were correlated at p=.01. The pattern of drinking of close adults and knowledge of blood alcohol concentration were correlated at p=.05. The last positive correlated was between engaging in unprotected sex and discussions of sexual past partner(s), p=.05.

Two statistically significant negative correlations were also found. One was significant at p=.05. and the other at p=.01. Use of a condom and discussion of sexual past partner(s) were negatively correlated with r=-.700. There were moderate correlations among variables presented in Table 2.

Several multiple regression analyses were also performed to evaluate predictors of reckless driving, patterns of drinking, and sex behaviors. Reckless driving was not a significant predictor of likelihood to drive (DWI) nor actually driving (DWI). Reckless driving was not a statistically significant predictor of driving under the influence (DUI). An analysis to predict charges of driving under the influence (DUI) from reckless driving yielded F (4,21)=2.680, p=.06. Patterns of drinking were not significant predictors of likelihood to drive (DWI), actually driving (DWI), or charges of driving under the influence (DUI). Sex behaviors were also not significant predictors of likelihood to drive (DWI), actually driving (DWI), or charges of driving under the influence (DUI). There were no significant predictors.

Discussion

In the present study, correlations were statistically significant for reckless driving, drinking patterns, and sexual behavior. The Tonkin results supported the results in the present study.

The Irwin results supported the results in the present study. Sexual behavior, substance use, and vehicular se were often interrelated as risky behaviors. The Dejoy results contradicted the present study. The Gerrard et al. results did not support results in the present study. People who engaged in more sexual risk behavior had estimated their likelihood of contracting HIV lower than others of their age and sex who engaged in fewer risk behaviors. The author also found that adolescents were fully aware of the risks associated with their behavior but changed their thinking about these risks in ways that eased their participation in these behaviors. There were no significant predictors in the present study.

The current study did support the belief that compared to their peers, subjects were likely to resist negative outcomes regardless of their behavior. Subjects found that others of their age and sex were more likely to contract AIDS than the likelihood of the subject to get HIV or any other STD. The present study did support the relations between risky driving and alcohol use. Driving under the influence (DUI) and driving slightly over the legal limit were statistically significant. However, risky driving did not relate to sexual behavior. Sexual behavior was not a predictor of the likelihood to drive (DWI), actually driving (DWI), and charges to drive under the influence (DUI).

A recommendation for future research is to use more subjects in the study. This may ensure better estimates of the interrelations between sexual behaviors and risky driving. Also, there might be significant predictors between reckless driving, patterns of drinking, and sexual

behavior. Future research could also find predictors of unrealistic optimism and whether or not males who engage in risk behaviors are less optimistic than females.

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Table 1 MEANS AND STANDARD DEVIATIONS FOR LIKELIHOOD TO DRINK, DRINKING UNDER THE INFLUENCE, AND HIV/STD MEASURES

	Paired Differences		
Measures	x	SD	sign 2-tailed
(Pair 1)			
-likelihood to drink an alcoholic beverage.	-1.0370	2.1028	.017
-likelihood of others to drink an alcoholic beverage in the future.			
(Pair 2)			
-likelihood to drink under the influence (DUI) in the future.	-2.7308	2.3589	.000
-likelihood of others to consume an alcoholic beverage in the future.			
(Pair 3)			
-likelihood to get HIV or any other STD.			
-likelihood of others to get AIDS.	-1.7826	1.7309	.000

Table 2 INTERCORRELATIONS AMONG VARIABLES

Correlations

	-B.A.L over the limit	-consumed then driven	(DUI)	stop or (DUI)
(DUI)	.439*	.228	1.00	-.080

	stop at a stop sign	driven over speed limit	reckless driving	lights run
drive over speed limit	-1.09	1.000	.419*	.611**
reckless driving	-.109	.419*	1.000	.705**

	health and safety	drinking pattern	close friends	close adults	.10	BAC .01	BAC
close friends	-.237	.144	1.00	.552**	.331	.314	
close adults	-.134	.199	.552**	1.00	.105	.407*	
BAC .01	.199	.301	.331	.105	1.000		.451*

	sexual history	use of condom	unprotected sex	engage w/STD or HIV	# of sexual partners	# of partner
use of condom	-.450	1.00	-.700**	-.117	.083	.107
unprotected sex	.416*	-.700	1.000	.325	-.087	-.060

** correlation is significant at the 0.05 level (2-tailed)
* correlation is significant at the 0.01 level (2-tailed)

Appendix A

Life Made Easy

The following survey is a study in the behavior choices of young adults. Your help in providing an accurate picture of what other young adults are like would be greatly appreciated. All information will be kept confidential. Please circle your answer or fill in the blank where appropriate. **PLEASE DO NOT PUT YOUR NAME ANYWHERE ON THIS SURVEY.**

1. What is your current age? _____

2. What sex are you?
   a. Male
   b. Female

3. What is your race/ethnicity?
   a. White, not of Hispanic Origin
   b. Hispanic Origin
   c. Black (African American)
   d. Asian or Pacific Islander
   e. American Indian or Alaskan Native
   f. Other (specify) _____

4. What is your marital status?
   a. Single (Never Married)
   b. Single (Living with a Mate)
   c. Married (Living Together)
   d. Married (Separate)
   e. Divorced
   f. Other (specify) _____

5. What is your classification?
   a. Freshman (0-30 credits completed)
   b. Sophomore (31-60 credits completed)
   c. Junior (61-90 credits completed)
   d. Senior (More than 90 credits completed)

6. Have you ever consumed an alcoholic drink and then driven a car?
   a. Never
   b. Once
   c. Twice
   d. Three times
   e. Four or more times

7. How likely are you to drive with a blood level slightly over the legal limit (ex. after consuming 3-5 drinks in an hour and then drive: (DWI)?
   1. No chance
   2. Minimal possibility
   3. Might possibly happen
   4. Possible
   5. Equal possibility
   6. Might happen
   7. Definitely will happen

8. In the last month, how likely were you to run a red light?
   a. Didn't
   b. Once
   c. Twice
   d. Three times
   e. More than four times

9. How many times in the last 4 months have you driven recklessly (for example, tailgating, passing on the right, not yielding right-of-way, and stopping before a yellow light)?
   a. Didn't
   b. Once
   c. Twice
   d. Three times
   e. More than four times

Please indicate the choice that best describes you. Circle only on answer. (write N/A next to questions that do not pertain to you.)

10. When I come to a stop sign I stop:
    a. Never
    b. Infrequently
    c. Some of the time
    d. Most of the time
    e. Every time

11. I drive 15 or more miles over the speed limit:
    a. Never
    b. Infrequently
    c. Some of the time
    d. Most of the time
    e. Every time

12. On those occasions when I drink alcohol, it is USUALLY
    a. Beer
    b. Wine
    c. Liquor
    d. Other
    e. Never drink

13. After consuming 5-6 drinks in an hour, I drive or have driven under the influence of alcohol (DUI):
    a. Never
    b. Infrequently
    c. Some of the time
    d. Most of the time
    e. Every time

14. I have been the passenger in a car where the driver was under the influence:
    a. Never
    b. Once
    c. Two times
    d. Most of the time
    e. Every time

15. About how old were you the first time you had a glass of beer or wine or a drink of liquor, such as whiskey, gin, scotch, etc.?
    a. Never drank beer, wine, or liquor
    b. 8-12 years
    c. 12-14 years
    d. 14-17 years
    e. 17 years and over

16. How likely is concern for your health and safety to influence your drinking behavior?
    a. Not at all
    b. Sometimes
    c. Most of the times
    d. Very Much

17. Since your first time, what best describes your drinking pattern?
    a. Once a year
    b. On holidays or special occasions
    c. Every weekend
    d. After work or school and on weekends
    e. Everyday

18. How many of your close friends CURRENTLY drink beer, wine, or liquor?
    a. None
    b. Some
    c. Most
    d. All

19. Indicate how many of the close adults you knew WHEN YOU WERE GROWING UP regularly drank beer, wine, or liquor?
    a. None
    b. Some
    c. Most
    d. All

20. Have you ever been in a car accident that was your fault?
    a. Never
    b. Once
    c. Two times
    d. Three times
    e. More than three times

21. At a blood alcohol concentration of .01, (a person at 150 lbs. drinking 5-6 servings of beer or liquor), what effect on driving ability do you think may occur?
    a. No difficulty in driving
    b. Difficulty in driving
    c. Moderate difficulty in driving
    d. Maximum difficulty in driving

22. With a blood alcohol concentration of 0.10, how likely is it that you will have difficulty standing, walking, and talking?
    1. No chance
    2. Minimal chance
    3. Moderate chance
    4. Maximum chance

23. Have you ever been stopped or charged by a police officer with a (DUI) offense while driving under the influence?
    a. Never
    b. Once
    c. Two times
    d. Three times
    e. More than four times

24. Compared to others your age and sex, how likely are you to be stopped by a police officer while suspected of driving while intoxicated (DWI)?
    a. Never
    b. Once
    c. Two times
    d. Three times
    e. More than four times

25. How many times in the last 4 months have you had a drink (for example, a bottle of beer, a glass of wine, or a mixed drink)?
    a. Never
    b. Once
    c. Two times
    d. Three times
    e. More than four times

26. How likely in the future are you to consume an alcoholic beverage?
    1. No chance
    2. Minimal possibility
    3. Might possibly happen
    4. Possible
    5. Equal possibility
    6. Might happen
    7. Definitely will happen

27. How likely in the future are others your age and sex to consume an alcoholic beverage?
    1. No chance
    2. Minimal possibility
    3. Might possibly happen
    4. Possible
    5. Equal possibility
    6. Might happen
    7. Definitely will happen

28. How likely in the future are you to drive under the influence of alcohol?
    1. No chance
    2. Minimal possibility
    3. Might possibly happen
    4. Possible
    5. Equal possibility
    6. Might happen
    7. Definitely will happen

29. How likely in the future are others your age and sex to consume an alcoholic beverage?
    1. No chance
    2. Minimal possibility
    3. Might possibly happen
    4. Possible
    5. Equal possibility
    6. Might happen
    7. Definitely will happen

30. How likely in the future are others your age and sex to be passengers in a car where the driver is under the influence?
    1. No chance
    2. Minimal possibility
    3. Might possibly happen
    4. Possible
    5. Equal possibility
    6. Might happen
    7. Definitely will happen

31. How likely in the future are you to drive while intoxicated?
    1. No chance
    2. Minimal possibility
    3. Might possibly happen
    4. Possible
    5. Equal possibility
    6. Might happen
    7. Definitely will happen

32. How likely in the future are others your age and sex to drive while intoxicated?
    1. No chance
    2. Minimal possibility
    3. Might possibly happen
    4. Possible
    5. Equal possibility
    6. Might happen
    7. Definitely will happen

33. How likely is it that you will have a drinking problem at some time in the future?
    1. No chance
    2. Minimal possibility
    3. Might possibly happen
    4. Possible
    5. Equal possibility
    6. Might happen
    7. Definitely will happen

34. How likely is it that your driving will cause a car or motorcycle accident that injures someone at some time in the future?
    1. No chance
    2. Minimal possibility
    3. Might possibly happen
    4. Possible
    5. Equal possibility
    6. Might happen
    7. Definitely will happen

35. Compared to others your age and sex, how likely is it that your driving will cause a car or motorcycle accident that injures someone at some time in the future?
    1. No chance
    2. Minimal possibility
    3. Might possibly happen
    4. Possible
    5. Equal possibility
    6. Might happen
    7. Definitely will happen

36. Compared to others your age and sex, how likely is it that you will have a drinking problem at some time in the future?
    1. No chance
    2. Minimal possibility
    3. Might possibly happen
    4. Possible
    5. Equal possibility
    6. Might happen
    7. Definitely will happen

(ANSWER #37 ONLY IF YOU HAVE NEVER DRANK BEER, WINE, OR LIQUOR)

37. What was the SINGLE most important factor that prevented you from beginning to drink beer, wine, or liquor? (indicate only one)
    a. Friends
    b. Parents
    c. Relatives
    d. Non-relative adult (mentor, teacher, coach)
    e. Did it on my own
    f. Concern for health
    g. A higher spiritual power

38. Are you a virgin?
    (this includes oral, anal, vaginal sex)
    a. Yes
    b. No
    IF YOU ARE A VIRGIN PLEASE SKIP DOWN TO QUESTION 61

39. Compared to others your age and sex, how likely do you think you are to get HIV or any other STD?
    1. No chance
    2. Minimal possibility
    3. Might possibly happen
    4. Possible
    5. Equal possibility
    6. Might happen
    7. Definitely will happen

40. Compared to others your age and sex, how likely do you think you are to test positive for an STD other than AIDS?
    1. No chance
    2. Minimal possibility
    3. Might possibly happen
    4. Possible
    5. Equal possibility
    6. Might happen
    7. Definitely will happen

41. How likely are others your age and sex to get AIDS?
    1. No chance
    2. Minimal possibility
    3. Might possibly happen
    4. Possible
    5. Equal possibility
    6. Might happen
    7. Definitely will happen

42. Compared to others your age and sex, how likely are you to engage in sexual intercourse with someone you just meet?
    1. No chance
    2. Minimal possibility
    3. Might possibly happen
    4. Possible
    5. Equal possibility
    6. Might happen
    7. Definitely will happen

43. In the future, I intend to use a condom when I have sex:
    a. Never
    b. Rarely
    c. Occasionally
    d. Almost every time
    e. Always

44. In the past 3 months, my partner(s) and I have discussed our sexual history and past partners:
    a. Never
    b. Rarely
    c. Occasionally
    d. Fairly often
    e. Often

45. In the past 3 months, my partner(s) and I used a condom when we had sex?
    a. Never
    b. Rarely
    c. Occasionally
    d. Almost every time
    e. Always

46. How often do you engage in unprotected sex?
    a. Never
    b. Infrequently
    c. Sometimes
    d. Always

47. If you do not practice safe sex, how likely are you to become infected with HIV?
    a. No risk
    b. Some what
    c. Fairly
    d. Extremely high risk

48. Have you ever engaged in a relationship with someone with and STD or HIV?
    a. 0
    b. 1-3 people
    c. 4-7 people
    d. More than 7 people

49. How many sexual partners have you had?
    a. 0
    b. 1-3
    c. 4-7
    d. More than 7

50. How many partners have you had sex with in the last 6 months?
    a. 0
    b. 1-3
    c. 4-7
    d. More than 7

51. Do you engage in anal intercourse?
    a. Yes
    b. No

52. Do you engage in vaginal intercourse?
    a. Yes
    b. No

53. Do you engage in oral intercourse?
    a. Yes
    b. No

54. After a blind date, how likely are you to engage in sexual intercourse with that person?
    a. Never
    b. Maybe
    c. Likely
    d. Most likely

55. Have you ever had an STD?
    a. Yes
    b. No

56. How likely are you to engage in sexual intercourse with someone you just meet?
    a. Never
    b. Likely
    c. Most likely
    d. Always

57. How many times have you had an STD?
    a. Once
    b. 1-3 times
    c. More than 3 times

58. The last time you had sex, did you use a contraceptive?
    a. Yes
    b. No

59. How likely are you to ask your partner(s) to use a contraceptive?
    a. Always
    b. Most of the time
    c. Sometimes
    d. Never

60. Have you ever accepted money or drugs for sex?
    a. Yes
    b. No

61. What type of sex education did you have? Circle all that apply.
    a. My friends told me about sex and STDs
    b. My siblings told me about sex and STDs
    c. My parents told me about sex and STDs
    d. I had a class about sex and STDs at church
    e. I had a class about sex and STDs at school
    f. A health care professional told me about sex and STDs
    g. I have never been told about both sex and STDs
    h. Other _____

Thank you for your time. If you have any comments regarding this survey please write them on the back of this paper. If you have any questions please ask the surveyor.

Appendix B

Consent Form

Your help is requested in a study on the behavioral choices among young adults.

If you choose to participate, I will supply you with a copy of the **Life Made Easy** survey and a blue pen. You will be asked questions of a highly personal nature regarding your opinions on sex, alcohol, and driving in the survey. If at any time you feel uncomfortable, you may simply close your survey and put it in the envelope provided. Participation is strictly voluntary and should take less than fifteen minutes.

You will be asked to use the standard blue pen provided to help ensure your anonymity. In addition, you will be asked to place your completed survey in a privacy envelope. Information obtained will also be coded so that it cannot be associated with you personally. Any information that my be identified with you remains confidential and will be disclosed only with your permission.

You may choose not to participate or may terminate your participation at any time without penalty. Any questions you have are welcome, please ask. If you have inquiries later, you may contact me, Abena Adu-Frema, through the Psychology Department located on the fourth floor of the Jenkins Behavioral Science Center.

You may request a copy of this form for your records.

You are deciding whether or not to participate. Your signature indicates that you have read the above information and have made the decision to participate. After signing this form, you may still choose to discontinue your participation at any time, without penalty.

_____ _____

Signature Date