SUBJECTIVE DEFINITIONS OF SUBSTANCE ABUSE PROBLEMS: DOES AGE MATTER?

by Elizabeth Katherine Bozzelli

The language associated with substance use behavior is not clearly defined, making effective communication on the topic difficult. This study employs focus groups and surveys to explore how substance abuse problems are defined among two different age groups. Age-specific vignettes describing substance use behavior of hypothetical individuals allowed for an examination of stereotyping and in-group/out-group thinking. Respondents were asked to rate the degree to which the individual has a substance abuse problem on a continuous scale. The analysis focused on respondent perceptions of substance abuse in relation to age and gender of both the individual in question and the respondent. Significant findings suggest that the initial framework of in- and out-group thinking is not the dominant influence on respondent judgments of target person behavior. Instead, the concepts of age norms and the “growing-up” effect are more helpful in making connections among the outcomes of the study. These outcomes overwhelmingly indicate that “age matters” in perceiving the severity of substance use behavior.
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A Thesis

Submitted to the
Faculty of Miami University
in partial fulfillment of
the requirements for the degree of
Master of Gerontological Studies
Department of Sociology and Gerontology

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2008

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For my grandmothers,
my godfather,
Dr. Shumway,
and
Sarah
Acknowledgements

Throughout this experience, I was fortunate to have the support of a significant number of people whom I would like to thank. My advisor and Chair of my Critical Inquiry Committee, Dr. Suzanne Kunkel, constantly provided nurturing guidance as both a talented researcher and a mentor. I am deeply honored and proud that she and I will be collaborating in the future. The other members of my committee, Drs. Jennifer Kinney and Jane Straker, were kind enough to entertain numerous detailed questions as they arose. My gracious teacher, Dr. Lisa Groger, remained a source of inspiration during the time and also shared valuable qualitative knowledge. The Director of the Applied Research Center, Dr. Robert Seufert, provided encouragement during the weeks before submission that was truly appreciated. I am excited and honored to be working with him and the other researchers at the Center. Fellow graduate students Adrienne Cohen, Karisha Wilcox, and Kirsten Song, generously helped in preparing for or in taking notes during the focus group discussions. The Director of the Oxford Senior Center, Joan Potter-Sommer, played a critical role in the recruitment of Baby Boomer focus group participants. Miami University Professor, Dr. Peter Magolda, contributed recommendations for readings that greatly assisted in writing the discussion section. I would also like to extend my gratitude to the following professors who devoted class time to this project: Drs. Bethany Hersman, Andrew Grainger, Robert Schaefer, Anthony Peguero, Gina Petonito, Glenn Muschert, Stephen Lippmann, Margaret Jendrek, and Ms. Sarah Denman. In addition, Dr. Scott Brown, Ms. Kathryn Watson, and the Scripps administrative staff lent additional support at various times during this undertaking. I am also extremely grateful to those who participated in the focus group discussions and those who responded to the surveys, as their time and input made this study a reality. Finally, I am truly indebted to my parents for their unconditional love and for sharing in both the challenging and rewarding times encountered during this endeavor.
Chapter I: Introduction and Literature Review

The Baby Boomer population consists of those individuals born in the United States between the years of 1946 and 1964 (Gfroerer et al., 2003). The number of older adults in the country will rapidly increase as Baby Boomers age, since that cohort greatly outnumbers any other birth cohort. The Baby Boomer population not only contains a greater number of people in comparison to past cohorts, but, according to several national studies, a larger proportion of them use illicit drugs (SAMHSA, 2001) and binge drink (U.S. DHHS, 2005). If members of the generation have maintained the mindset of the 1960’s (Greenblatt, 2007), such use and abuse may be attributed to the characterization of “sex, drugs, and rock and roll” often associated with them. The purported greater use of drugs and alcohol has significant implications for family members, treatment and educational programs, raising awareness in general, and policy makers.

Substance use and abuse is an under-researched topic in gerontological literature; in fact, a common definition of a “substance abuse problem” has yet to be agreed upon. Having a shared definition would clarify communication about the varying levels of substance abuse problems, as perceptions of them may easily differ. Adding to the complexity of understanding substance use among aging Baby Boomers, there is no literature on whether the general population holds differing views regarding substance abuse problems for individuals of different ages. Therefore, the principal research question this study explores is: How do different age groups define a substance abuse problem?

If there are differing opinions, it would be beneficial to know which age group is judged with the more “forgiving,” harsh, or realistic guidelines and what situational differences (if any) influence conclusions. Such differences might be present due to the use of stereotypes, making fundamental attribution errors, or in- and out-group thinking (all to be discussed below).

Consequently, the overarching question is conceptualized in terms of the following sub-questions and variables for quantitative analysis: 1.) Does the perceived severity of substance abuse problem vary by age and other sociodemographic characteristics of the respondent? 2.) Does this perceived degree of severity vary for different ages of individuals? 3.) Does the perceived severity of substance abuse problem vary based on the legality of the substance used, social context, or the individual’s ability to function on a regular basis? These questions will be explained in further detail in Chapter II.
Literature Review

A Growing Problem

This section provides an overview concerning the growing number of older adults in the United States and the substances used by some Baby Boomers as they age. Also, a Baby Boomer tendency that may account for the increase in the number of older adults admitted to treatment programs for illicit drug abuse is discussed.

“With the baby boomers (aging), the number of older Americans is projected to (grow) to 82 million by 2050, an increase of 225% from the year 2000” (Robinson & Umphery, 2006, p. 159). Clearly, this increase in the number of older adults in the United States could combine with an increased proportion of them using or abusing substances to raise challenging issues for policy makers, educators in the community, the research arena, service providers, and family members of older adults.

In 2003, Gfroerer and colleagues found that 2.1% of adults over 50 were classified with substance abuse or dependence based on the criterion in the DSM-IV. Of the older adults in the study who were classified as having a substance problem, 85.8% had a problem with only alcohol, 10.2% had a problem with only illicit drugs, and 4% had a problem with both. Alcohol is likely to remain the most used and abused substance among older adults (Gfroerer, 2005), disregarding nicotine. That said, cohorts that experience high rates of illicit drug use during youth (e.g., the 1960’s) are more likely than other cohorts to have related problems as they age (Gfroerer et al., 2003; Gfroerer & Epstein, 1999). This trend can already be observed in substance abuse treatment admission records since the number of older adults signing in for treatment due to illicit drug problems has increased (Gfroerer, 2005). It is possible that this increase is partially due to the fact that Baby Boomers are more likely to discuss their personal issues than previous cohorts (Solomon & Solomon, 2004). If Baby Boomers are more inclined to talk about personal matters, they may also have more accepting attitudes toward self-reporting substance abuse problems and seeking treatment. It should be noted that medication misuse is also a growing concern, as the majority of prescription drug consumers are older adults (Wartell & La Vigne, 2004). However, prescription drug and other medication misuse are beyond the scope of the present study.
What Constitutes a Substance Abuse Problem?

The ambiguity involved in attempting to define substance abuse is partially based in the fact that some terms have different meanings to different people, and sometimes two different terms are used to mean the same thing. Diagnostic manuals and screening tools reflect the confusion in the general public over what constitutes a “problem” and even what the levels of that problem should be called.

There is a set of terms regarding substance use behavior that have overlapping meanings. These terms include “tolerance,” “dependence,” “addiction,” “overdosing,” and “substance abuse problem.” For example, for a person who feels the psychological need to smoke marijuana daily, it is quite possible that not everyone would make a distinction between being “dependent” upon the drug and being “addicted.” Such use of these semi-interchangeable terms is one example of the general population’s lack of a clear conception of what constitutes a substance abuse problem.

In addition, the same terms may be used differently by different individuals in the process of assigning labels to the behavior and health status of others. For example, one person might say their friend is “dependent” on a cup of coffee to wake them up in the morning. Some might think this means that the friend becomes easily annoyed without a cup of coffee whereas others would think that the friend just needs the caffeine to feel awake. This usage of words indicates that people may have various reasons for assigning labels to the situations of others.

Diagnostic manuals and screening tools reflect this variability; their criteria or questions are not the same, placing different emphasis on a variety of issues related to determining if someone has a substance-related problem. The DSM-IV and the ICD-10 are two manuals used by doctors to diagnose individuals with substance-related problems. Both have two different levels of diagnoses with one being more severe (i.e., more problematic) than the other. Main indicators of a problem in both manuals regard tolerance, withdrawal, continued use in spite of problems, and a variety of indicators of impaired control (Hasin et al., 2006).

Self-administered screening tools include the Rapid Alcohol Problems Screen Four Quantity-Frequency (RAPS4-QF), the CAGE, the Alcohol Use Disorders Screening Test (AUDIT), and the Short Michigan Alcoholism Screening Test-Geriatric Version (SMAST-G). Most screen for only the possibility of a problem. Two common questions are about feeling guilty about drinking and having a drink first thing in the morning; however the questions vary
among instruments (Barry et al., 2001; Babor et al., 2001; Cherpitel et al., 2005). Therefore, diagnoses could easily lack consistency depending upon which measure is used to evaluate substance use.

The levels of diagnoses in the manuals represent different degrees of severity of the substance use problem. Thus, doctors essentially define the degree to which a person has a substance abuse problem through the process of determining which criterion the individual meets and then giving him/her the respective diagnosis (if any). Similarly, the selection of the questions and scoring system to determine if a person has a possible alcohol abuse problem essentially defines what constitutes the possible alcohol problem that the instrument has specified. For example, a tool that neglects to ask about quantity and frequency misses an important part of the situation; the amount of alcohol actually being consumed (Barry, 2007). Such a tool defines two people who drink substantially different amounts as both having a possible drinking problem (for example) as long as they answer enough of the remaining questions in the same manner.

The diagnostic manuals and screening tools screen for alcohol problems with terms varying from “probable alcohol problems” to “hazardous (risky) drinking, harmful drinking, or alcohol dependence” to simply “alcohol dependence” (Roberts et al., 2005; Babor et al., 2001; Hasin et al., 2006). This range in language exemplifies the ambiguity and confusion over agreed upon terms in substance use communication. It is also a very clear example of the interchangeability of words used in describing one level of a substance abuse problem. For this reason, this study will consider variability in the terms used by focus group participants.

The Social Construction of Meaning

The social construction of meaning is relevant in that this study involves individual thought structures which directly affect decision-making and perceptions about substance use problems. Gubrium and Holstein (1999) emphasize that context organizes meanings, and that it is meanings given by groups of people that are important. Thus, social situations are the context where we give meaning to the words with which we understand our worlds. As will be discussed below, stereotyping and attributions about other individuals are ways of making sense of a situation or behavior. The difficulty of trying to understand substance abuse behavior is that the issue is too complex a problem to be unequivocally and universally recognized and named. As described above, creators of manuals and screening tests have come across obstacles in

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formulating measures to diagnose substance-related problems. If medical professionals have a hard time agreeing on how to identify problems, it is clear that the general population will have also have differences in perception and definition.

The constructionist approach also emphasizes the contemplation of “how objects or things have come to have a sense of being real and distinct” (Gubrium & Holstein, 1999). This concept of the objective and subjective worlds is compatible with Goode’s (2008) discourse on the objective vs. the subjective realities of how drugs are defined medically. Speaking medically, the objective reality of a drug is that it “does something (therapeutic) to the body” (p. 8); it provides healing. Goode also calls this the “essentialistic” element of the medical definition of a drug. However, the medical definition of drugs also has a subjective aspect. The subjective, or “socially constructed,” element of how drugs are defined medically refers to if the drug is “recognized as therapeutically useful by physicians” (p. 8). Thus, if physicians approve a substance for medical use under certain conditions, members of society come to view the drug as acceptable for treating an illness or disorder.

Influences on Perceptions and Decision Making

Building on the notion that meanings are socially constructed, several theoretical perspectives and concepts describe social and psychological processes that play a role in the social construction of meaning. In particular, the concepts of stereotyping, Social Identity Theory, and fundamental attribution errors are useful for understanding how substance use comes to be defined as problematic or not. All of these frameworks are helpful in providing possible explanations for outcomes of the present study.

This study is grounded in the idea that stereotyping tends to occur while people are forming their beliefs, perceptions, and judgments of others. A stereotype is a set of traits attributed to a social group and used to both explain and make predictions about behavior solely because an individual belongs to that group (Umphery & Robinson, 2007; Matheson et al, 2000). Characteristics that are often used in stereotyping are gender and age. This process of essentially labeling other people is directly related to this study in that such processes could easily play a role in how substance use behavior is interpreted and defined.

There are both positive and negative stereotypes associated with older adults (Chasteen, 2000; Cuddy et al., 2005). In a study of 55 college students, Cuddy, Norton, and Fiske (2005) found that older adult targets who exhibited more incompetence were rated as having more
warmth. This finding suggests that these targets were rewarded for behaving consistently with the group’s negative stereotype. Important to the present study, college students have indicated that the dominant emotion they feel toward older adults is pity, accompanied by occasional admiration (Cuddy et al., 2005).

Other research supports the existence of mainly negative stereotypes in relation to older adults. A study by Robinson and Umphery (2006) employed positive and negative images of older people in advertisements. Respondent perceptions were then studied in reference to stereotypes. The researchers found that young adults indeed have negative “preconceived stereotypical beliefs about older people…(and) also use them to make decisions about older people” (p. 169). Overall, such studies indicate that younger respondents may use negative stereotypes about older adults and judge an older adult in question with harsher standards than they would persons of younger ages.

Older adults also have stereotypes about younger adults, according to several studies. For example, “older people have rated younger persons as less trustworthy, less friendly, less tolerant, and less acceptable than older adults (Luszcz, 1985-86; Ward, La Gory, & Sherman, 1988)” (in Matheson et al., 2000). In contrast, Matheson, Collins, and Kuehne (2000), assessed the multiple stereotypes of older adults toward younger adults. The results indicate that older adults stereotype younger people more positively than negatively, and the positive stereotypes are more common than the negative stereotypes. The types of characteristics that older adults generated in thinking of young adults regarded personality, social, and emotional aspects of personhood. In contrast, traits that young people considered in stereotyping older adults were typically competence and physical qualities. Considering this difference in stereotyping based on different ages of the person in question and the respondent, Matheson and colleagues suggest that age of the respondent plays an important role. If different qualities are important to respondents when formulating their views, different decisions based on the age of the respondent may result.

According to a study by Snyder and Miene (1994) as cited by Chasteen (2000), there has been research that indicates a possible gender effect in attitudes regarding age. Importantly, gender stereotypes have been found to depend on the age of the respondent (Hoffman & Pasley, 1998) and age stereotypes tend to override gender stereotypes (Cuddy et al., 2005).
Social Identity Theory expands upon the concept of stereotyping and details the ideas of attribution. Individuals tend to use stereotypes to categorize others into a group (either as a member of the observer’s own group, or as “other”) when first making assessments. People typically consider themselves to be in a certain “in-group” and want to have a favorable view of themselves in conjunction with this group (Robinson & Umphery, 2006; Umphery & Robinson, 2007). Accordingly, individuals consider “others” to be part of an out-group. This process may be how age-related stereotypes developed (Robinson & Umphery, 2006). When a person acts in favorable ways toward their group (e.g., their age group), their behavior is considered to be in-group favoritism. Conversely, unfavorable behavior toward others is considered to be out-group derogation (Tajfel’s social identity theory of 1981 as cited by Chasteen, 2000). Such categorization and behavior patterns could lead participants to respond with favoritism when asked about a person in their age group or with the same gender. That is, young respondents who are judging a young individual may rate that individual as having a less severe substance abuse problem in comparison to how they would rate an older individual.

A re-visititation of the study by Matheson and colleagues (2000) provides further insight. The study indicates that older adults have positive views of their out-group. These amicable perspectives may be due to the positive societal view of youth, or to the older adults remembering their personal history favorably (Matheson et al., 2000). Thus, a number of judgments by respondents about persons of other ages are possible based on this framework.

Fundamental attribution errors, also related to perceptions and judgments of others, constitute the final framework that grounds this research. Basing their discussion on information from several sources, Robinson and Umphery (2006) assert that the fundamental attribution error occurs when one’s own behavior is attributed to external causes while the behavior of others is seen as the result of a personality trait. Not surprisingly, stereotypes have been linked to the fundamental attribution error (Robinson & Umphery, 2006; Umphery & Robinson, 2007). Since age stereotypes vary by the age of the respondent and about people of different ages, these attributions for the same individual in question (or target) are likely to be different for different age groups of respondents.

Even more important to this study is the “ultimate attribution error,” proposed by Pettigrew in 1979 as cited by Umphery and Robinson (2007). This error is where negative behavior of an out-group member is more likely to be attributed to personality origins rather than
the same behavior of an in-group member. Such ascriptions could mean that younger respondents may be more likely to favor young targets simply because they are in the same age group, even if they exhibit the same behavior as those in other age groups due to attributing the negative behavior of only the out-group targets to personality origins. For example, suppose a college student was asked about an adult drinking heavily and because the adult belonged to a different age group, the student assumed it was due to the inability to manage stress at work instead of simply a situational cause. In this instance, a perceived personal weakness would be responsible for the behavior, making it more likely for the student to be confident that the adult had a substance abuse problem.

Grounded in the theoretical frameworks described above, this paper explores the notion that the same behavior for targets of different ages may constitute different perceptions of the severity of a substance abuse problem according to respondents from two different age groups. This is not to say that all respondents will answer based on stereotypes and in- and out-group thinking alone, or that they will make attribution errors. It is also possible that respondents hold the same standards about drinking and other substance abuse constant, regardless of age, gender, legality, social context, and resulting consequences.

Other Factors in Judgment Regarding Substance Abuse Behavior

In addition to gender and age, factors that may contribute to decisions about the degree of problematic substance use behavior are legality of the substance, social context, and resulting consequences in terms of whether the person is able to function on a regular basis. In particular, messages presented to the public by the media about using various substances and the importance of drinking in a social context are discussed below.

This study examines the extent to which legality of the substance influences decision making. It is possible that respondents may think use of an illegal substance (i.e., marijuana) to be more problematic than the use of alcohol. For example, there have been several television commercials which emphasized the harmful effects of “drugs and alcohol” on young people, but when the drinking age is reached, these same people are enticed by beer and liquor advertisements. The viewer is supposed to identify with the people in the appropriate advertisement based on their age (in-group comparisons). This tactic implies that alcohol use is eventually acceptable, but not drug use.
Respondents may also base their decisions about substance use behavior on the context within which it takes place. That is, some may consider social drinking to be less of a problem than drinking alone. In fact, the creator(s) of the SMAST-G (the Short Michigan Alcoholism Screening Test-Geriatric Version) considered this factor to be important enough to include it in their screening tool. The question reads “When you feel lonely, does having a drink help?” (Roberts et al., 2005). One cannot assume that individuals are always alone when they feel lonely, but feeling lonely and being alone typically are associated with one another.

In addition, the public is presented with messages about the significance of drinking alone. In *The Newstatesman* (2006), Scruton provides an article essentially depicting a depressing conceptualization of those who drink alone. He suggests that before one begins to drink, the first thing to do is surround oneself with friends. “Most of all,” he writes, “think of the others and forget yourself” (p. 62).

Finally, the negative consequences experienced by a person may influence the perceived severity of substance abuse problem. These consequences include problems in relationships at work, legal trouble, alcoholism, monetary problems, and difficulty fulfilling daily obligations (e.g., excessive absences from class). It is possible that if a person can still function in terms of going to class or work, their substance use behavior may seem less problematic than if they cannot follow a more acceptable routine.

Also, there may be a gender difference in the severity ratings due to how men and women think about the consequences of substance use. McCreary and colleagues (1999) found that despite men being more likely to experience adverse consequences as a result of heavy drinking, women were more likely to associate the consequences with alcohol problems. Based on this finding, it is reasonable to expect that female respondents will generally give all targets higher severity ratings in comparison to the severity ratings assigned by male respondents because the women are more likely to be concerned about the specified consequences. Overall, this research will allow an examination of whether any possible impact of stereotyping or in-group/out-group identity is mediated by the consequences of the action.

*Perceptions of Substance Abuse Problems: Two Swedish Studies*

A study by Abrahamson (2003) employed focus groups of young adults who wrote about the definitions of “an alcoholic, a heavy drinker, and a drunkard.” The participants defined (i.e., categorized) the drinking persons in three dimensions: (1) whether the person is in control of the
drinking behavior, (2) drinking habit in terms of quantity and frequency, and (3) environmental context.

One main finding is that young men often wrote about drinking behavior in terms of habit, which involved social context attributions. In addition, young women associate the alcoholic with drinking alone. Thus, the theme of context surfaces as an important aspect of decision making when thinking about substance abuse. In addition, it is quite possible that fundamental attribution errors, stereotypes, and out-group thinking were involved when the participants were constructing their definitions of the drinking persons.

A second Swedish study by Menghrajani, Klaue, Dubois-Arber, and Michaud (2005) explored adolescents’ and adults’ perceptions of cannabis use by employing focus group discussions. A relevant question addressed was: “what is considered as cannabis misuse…?” (p. 478). This question yielded varied responses, as younger adolescents and many parents talked about frequency and quantity, while older adolescents and professionals tended to define misuse in terms of the user’s vulnerability. Interestingly, the theme of context appeared again, as an 18-year old female participant remarked that if a person “start(ed) to smoke alone, well they are dependent” (p. 480).

In speculating about their findings, Menghrajani and colleagues noted that they thought they would find a clear difference in what the various age groups had to say about the definitions of cannabis use and misuse. However, “such a clear-cut contrast did not emerge-the situation being far more complex” (p. 482). There were about as many differences among the adults or adolescents themselves as between the two groups. For example, the group of professionals thought that parents should be able to have more of a positive influence on their kids to sway drug use, whereas the parents expected deterrent messages from the media to aid in prevention. Clearly, these results pertain to the present study, as one of the major theoretical points is that substance use is an extremely complex issue. Also, respondents may pick different answers for different ages of targets, but there may be no single pattern that can be established to separate the age groups of respondents. In other words, the degree to which a target has a “substance abuse problem” may vary for the age of the target person, but not by the age of the respondent.

Research Goals

The difficulty of attempting to effectively communicate about substance abuse stems from the fact that there is no set of terms that have been well defined. Without clear, universally
understood or accepted definitions, individuals may employ a variety of social psychological processes to decide about the severity of substance use behavior. The goal of this study is to provide literature that will be a reference point for future researchers in exploring the definitions of substance abuse related problems in terms of sociodemographic differences (e.g., age) and related language.

The specific questions that this project intends to explore are driven by the Model on page 13. It provides a visual representation of the transition from the theory behind the study to the actual variables of interest. To begin with, the constructionist approach emphasizes that society is the context in which we develop a subjective understanding of the world and situations. Therefore, the social construction of meaning is the overarching theoretical construct in the Model. The resulting ways in which we make decisions involve the categorization of others and influence how problems are defined. This categorization of other people can be attributed to stereotypes, in- and out-group thinking, and attribution errors. If these ways of making sense of a situation are responsible for decisions made by respondents about the severity of a substance abuse problem, college students and Baby Boomers will answer questions in different ways than they would otherwise.

Overall, research by Robinson & Umphery (2006) and Cuddy and colleagues (2005) indicate that younger respondents may use negative stereotypes about older adults as they make judgments. As shown in the “Theoretical” section of the Model, this could easily refer to the process of respondents using stereotypes when categorizing others in order to make judgments about what constitutes a substance abuse problem. Therefore, if young respondents think having a substance abuse problem is unfavorable, it is anticipated that they will base their attributions for the older targets on negative age stereotypes and pick a higher degree of substance abuse problem for them. This expected action of treating the older age groups unfavorably is a clear example of out-group derogation. Also expected is the corresponding behavior of in-group favoritism where respondents provide the answer they think is best for their age group.

Most importantly, the ultimate attribution error may lead respondents to rate a target person as having a more severe substance abuse problem if the target is in a different age group simply because they are in different age group even though all of the targets are engaging in the exact same behavior. Such method of categorization would result in different answers for
different ages of targets despite identical behavior and effect of substance. This error is very much anticipated.

The theoretical components of the study described above are operationalized into the research questions in the lower half of the Model. The degree to which stereotypes, in- and out-group thinking, and ultimate attribution errors can help in explaining possible thought processes behind responses may be different for each age and gender group of respondent. Further, gender and/or age of the target could also play roles in how the severity of problematic substance use behavior is assessed. As discussed above, other factors that may be associated with perceptions of such behavior are legality of the substance, social context, and consequences resulting from the behavior (also shown in the “Research Question” section of the Model). Regardless of differences in perceptions of problematic substance use behavior (if any are found), the ways in which respondents assign meaning to the behavior (i.e., its degree of severity) is expected to be heavily dependent upon societal influence.
Project Model: Conceptual & Operational

Social Construction of Meaning

Categorization of Others
- Stereotypes
- In/out-group thinking
- Attribution Errors

Definition of Problem

Assessment of Substance Abuse Problem
- Context
- Legality
- Consequences

Research Question(s)
- Age of Respondent
- Age of Target Person
- Gender of Respondent
- Gender of Target Person

Theoretical Model

Bozzelli 3/5/08
Chapter II: Research Questions and Methods

Research Questions

Based on the literature on social constructionism, stereotypes, Social Identity Theory, and attribution errors, this study further explored age, context, and gender as they related to definitions of substance abuse problems. The main research question for this study was: How do two different age groups (college students and Baby Boomers) define a substance abuse problem? Sub-questions were: 1.) Does the perceived severity of substance abuse problem vary by age and other sociodemographic characteristics of the respondent? 2.) Does this degree of severity vary for different target ages, genders, substances, contextual factors, and resulting consequences? A mixed-methods approach was used to answer these questions. Specifically, a self-administered survey was the primary methodology, with focus groups providing the opportunity for some triangulation. The survey used vignettes and sub-questions that varied based on age in order to explore whether “age matter(ed)” when respondents made decisions about the severity of substance use behavior.

Methods

Despite what was known about defining substance abuse, it was still necessary to begin with some open dialogue about the subject matter, as it was an under-researched topic. Therefore, Phase One was a focus group component, designed to allow for gaining a sense of participants’ perspectives and to observe them communicating about substance abuse. Phase Two was a quantitative component; survey data were collected to explore relationships between age and severity ratings of substance abuse problems. Methods used for each of these two phases of the project are discussed below, as are the measures used for the survey. (Please see Appendix I for all focus group discussion and survey materials. This includes recruitment letters, the basic discussion guide, announcements, project descriptions, and the final surveys.)

Focus Group Discussions (Phase One)

Two focus group discussions were conducted: one for Baby Boomers (ages 43 to 62) and another for college students (ages 18 to 26). The focus group discussions helped in formulating the knowledge base that became a reference point throughout the study. Thus, these focus group discussions gave context to survey findings. In addition, feedback from group discussions was used to refine the surveys.
For both groups, the initial discussion centered around what initially came to mind when the term “substance abuse” was heard, as participants were asked to write down their responses and then share them with the group. This activity allowed participants the ability to “freely associate” about anything having to do with substance abuse or “what (they) pay attention to when (they) are deciding if someone is abusing a substance.” In order to stimulate discussion as needed, additional questions were prepared to guide the conversation. These questions were developed while considering the main focus of the project and included probes to encourage elaboration on initial responses.

The second part of the activity consisted of the completion of a short questionnaire. All questions except the last were vignettes which were the major instrument in the surveys (to be discussed below). Participants were then asked to provide feedback on the vignettes so that they could be refined for the survey.

The discussion of the vignettes provided input about whether the questions were too transparent. Since this feedback was the main purpose of the activity, the actual answers obtained in response to the specific vignettes during the focus group discussions were not treated as data in the analysis. Rather, the information was used to refine the vignettes before they were included in the survey. The focus group discussions were audio taped and notes were taken by other graduate students. Also, throughout the discussions, emphasis was placed on the fact that the study was about perceptions that the participants had, rather than their behavior.

The participants in the college student discussion were recruited by an announcement made in Miami University classes. It was important that only students who were between the ages of 18 and 26 participated in the discussion, as this was an age-specific study. Therefore, to increase the probability of recruiting students over the age of 18, recruitment took place in higher level Sociology courses. In-class recruitment announcements were made, blackboard advertisements were posted, and information pages were distributed to over 300 students. However, only two students came to the discussion. This was below the goal number of eight participants; however the two students had very different perspectives.

Baby Boomer participants were recruited by contacting the Director of Oxford Senior Center, who then sent recruitment letters to members and/or their spouses of the appropriate ages. These recruitment letters were sent to 24 Baby Boomers and follow-up telephone calls
were made. Five participants came to the activity and again, the nature of the group made up for the small number.

Measures: Vignettes

Vignettes have been found useful in providing context for training or survey questions. For example, Lott and Saxon (2002) found that changing circumstances and/or characteristics of the target in descriptive scenarios resulted in different responses reflecting possible stereotypes associated with ethnicity and social class. Also, vignettes are used in training researchers and interviewers whose focus is substance abuse (Butler et al., 1998; Guthrie et al, 2006).

Initial vignettes and sub-questions were designed to explore which variables were the most important when the respondent decided if varying degrees of problematic substance use behavior was present for different ages of target people. In order to accomplish this objective, separate vignettes were written for three hypothetical individuals: a college student, a middle-aged adult (a Baby Boomer), and an older adult (a retired adult).

The initial vignettes for each of the targets specified the same quantity and frequency of alcohol consumed by the target, that they drank with others, and that they had commitments that they could not fulfill on a regular basis. These vignettes also included the age of the target, their gender, and responsibilities that were comparable to one another. Three sub-questions followed each vignette. Each sub-question altered some aspect of the situation: (a.) that the substance used was marijuana (legality), (b.) that the target drank alone (social context), and (c.) that the target could still fulfill their daily obligations (functioning). The initial vignette and its sub-questions for the female college target are provided below.

-----------------------------------------------------------------------------------
1. Annie is 21 and a college student. She usually goes out with friends 2 or 3 nights a week and typically has around 4 or 5 drinks every time she’s out. She sometimes misses class because of her drinking. To what degree does Annie have a substance abuse problem?

<table>
<thead>
<tr>
<th>No Problem At All</th>
<th>Possible Problem</th>
<th>Problem</th>
<th>Serious Problem</th>
<th>Very Severe Problem</th>
</tr>
</thead>
</table>

1a. What would your answer to the above question have been if the substance involved was marijuana (i.e. smoking one joint 3 times a week)?

<table>
<thead>
<tr>
<th>No Problem At All</th>
<th>Possible Problem</th>
<th>Problem</th>
<th>Serious Problem</th>
<th>Very Severe Problem</th>
</tr>
</thead>
</table>
1b. What would your answer to the above question have been if Annie drank alone every time instead of with her friends?

<table>
<thead>
<tr>
<th>No Problem At All</th>
<th>Possible Problem</th>
<th>Problem</th>
<th>Serious Problem</th>
<th>Very Severe Problem</th>
</tr>
</thead>
</table>

1c. What would your answer to the above question have been if Annie was able to go to class every day regardless of her drinking behavior?

<table>
<thead>
<tr>
<th>No Problem At All</th>
<th>Possible Problem</th>
<th>Problem</th>
<th>Serious Problem</th>
<th>Very Severe Problem</th>
</tr>
</thead>
</table>

As just shown, respondents were asked to rate the degree to which the target had a substance abuse problem on the same 5-point severity scale that ranged from “no problem at all” to “very severe problem.” This scale was the same for all of the initial vignette questions as well as their sub-questions. The severity ratings that respondents assigned targets were the key measures throughout the analysis.

Participants in the focus group discussions were given one of two forms. The difference between the forms was that one form consisted of vignettes about only male targets and the other of vignettes about only female targets. The participants provided feedback about the vignettes which was very positive. All participants in both group discussions agreed that the 5-point scale and its labels were appropriate, which justified using this initial scale in the survey vignettes. The Abrahamson (2003) study used three drinker types, so this input about the 5-point scale provided was very important. The vignettes were then refined based on focus group participants’ comments and on a small pilot test of the instrument with peers and faculty.

It is important to emphasize that quantity and frequency of the substance consumed had to be held constant throughout all vignettes in order to facilitate proper evaluation of whether different standards existed for the different ages. Drinking quantities and frequencies were intentionally kept vague (i.e., given as a range) for realistic purposes, as it is not likely that a person would go out exactly three times every week and have exactly three drinks each time. Also, consideration was given to how the respondent may make comparisons with known recommended drinking limits, and therefore, the fact that these recommendations are not consistent. Proposed drinking limits for alcoholic beverages vary for different age groups and between the two genders.
For example, in 2002, *Consumer Reports on Health* published an article stating that “moderate” drinking consisted of no more than two drinks a day for men and one per day for women. This “moderate” drinking is “generally safe for healthy people with no history of alcoholism, drug abuse or addiction, or depression” (Sandroff, Ed., p.10). The article then goes on to say that moderate drinking can reduce the risk of coronary heart disease. This follow-up statement leaves one to wonder if everyone should engage in “moderate” drinking if they meet the above qualifications.

Secondly, the American Geriatrics Society’s (AGS) advised weekly limits for older adults are one drink per day, 7 days a week, and certainly no more than three drinks when drinking heavily (2003). With such widely distributed different recommendations for the genders and age groups as to what is acceptable drinking behavior and perhaps why, it was necessary to stipulate in the directions for the vignettes that the same amount of each substance would have the same effect on all of the targets. Otherwise, responses may have been based on different recommended limits for female and/or older adult targets.

*Measures: Severity Scales*

Based on the vignette questions, four sets of scales were created in order to analyze the associations between variables. Higher scores on any particular severity scale reflect respondents’ opinion that there is a higher degree of problematic behavior present.

The first set of scales was used to evaluate severity ratings based on the age of the target in the vignettes. Therefore, one scale consisted of the combination of all the questions about the college age target, another scale of all the questions about the Baby Boomer target, and the third scale of all the questions about the retired target. For example, all of the questions provided on pages 16 and 17 about the college student named Annie and all of the questions about the corresponding male college student constituted the “College Target Severity Scale.” The other scales were named “Baby Boomer Target Severity Scale,” and “Retired Target Severity Scale” respectively. The possible scale scores ranged from four to 20.

The second set of scales was created to allow examination of severity ratings based on the gender of the target person. The “Female Target Severity Scale” was made up of all 12 vignette questions on the female form (i.e., all the questions about females). Similarly, the “Male Target Severity Scale” was made up of all 12 vignette questions on the male form (i.e., all the questions about males). These two scales had possible scores ranging from 12 to 60.
A third set of scales was needed to assess severity ratings based on both age and gender of the target person. These scales were identical to the age severity scales with the additional separation of gender groups within each scale. Dividing the scales in this manner resulted in six severity scales, named “Female College Target Severity Scale,” “Male College Target Severity Scale,” “Female Baby Boomer Target Severity Scale,” “Male Baby Boomer Target Severity Scale,” “Female Retired Target Severity Scale,” and “Male Retired Target Severity Scale.” Each scale had possible scores ranging from four to 20.

The final set of scales was generated in order to gauge severity ratings based on the situation specified by the vignettes. The “Basic Severity Scale” contained the three initial vignette questions which (as stated above) specified the age of the target, that they consumed alcohol in a social context, and that the target missed a few days of class, work, or volunteering every week. This scale was used as the standard to which the other situational scales were compared. The “Marijuana Severity Scale” consisted of the three sub-questions that changed the substance used from alcohol to marijuana. Correspondingly, the “Alone Severity Scale” was made up of the three sub-questions that asked about the target drinking alone instead of with friends, a spouse, or co-workers. Lastly, the “Functioning Severity Scale” combined the three sub-questions that inquired about the target being able to fulfill their academic, professional, or volunteering responsibilities regardless of their substance use behavior. The possible scale scores ranged from three to 15.

Surveys (Phase Two)

The revised vignettes constituted the core portion of the surveys, which served as the main data collection instrument for this study. The use of the vignettes allowed for exploration of how individuals of different ages responded to various scenarios where age was the focal variable. This was how the study investigated whether the degree of “substance abuse problem” differs by age, for different ages. Although it was primarily made up of vignettes, the survey also included a few questions about general perspectives regarding substance use. These general questions provided basic information about how serious subjects thought the issues of alcohol and illicit substances were among the two age groups. The last section of the survey contained sociodemographic questions for the purpose of measuring the control variables of gender, race, and education.
Sampling and data collection.

The respondents for the college age survey were recruited through announcements made in a variety of Miami University undergraduate classes. Sampling students under age 18 had to be avoided due to the requirement of obtaining parental consent; therefore more advanced classes were selected. All students over the age of 18 were invited to take the survey. However, they were also informed that if they were not between the ages of 18 and 26, their data would not be considered during analysis due to the fact that it was an age-specific study (as discussed above).

The college surveys were administered during class time following the recruitment announcement to students in selected Miami University upper-level Statistics, Sociology, and health-related undergraduate classes. All students had the option of returning the survey blank or not answering the questionnaire in its entirety. However, all 103 students chose to complete the survey. This is a higher response rate than expected, as the goal was to obtain 60 to 80 completed college student surveys. One professor also contributed his responses even though he knew his data could not be used.

Voter registration records of Oxford, Ohio and the surrounding area were used to obtain the Baby Boomer survey sample. Respondents were randomly selected from a large data set containing addresses and names of residents in the 45056 zip code born between 1946 and 1964. (Birth between these years would place them in the Baby Boomer generation.) Recruitment letters containing information about the study were sent with the mailed surveys in an attempt to gain participation. Also, postage was provided on the self-addressed return envelopes in hopes of encouraging response. These surveys were mailed to 309 Baby Boomers with a predicted response rate of 30 percent. One hundred twenty three surveys were returned; with the omission of the 30 incorrect addresses from the voter registration records, this represents a response rate of 44.09 percent.

Both the college student sample and the Baby Boomer sample were divided in order to obtain data using the two different survey forms. Approximately half of each sample received the “female” form while the other half received the “male” form. The variation in gender between the two forms allowed for exploration of target gender differences. Gender of any given respondent did not determine if they received a “female” or “male” form, however their age group membership determined if they received a “college student” or a “Baby Boomer” form.
“ACOL” represents “female target person, college respondent” and “ABAY” represents “female target person, Baby Boomer respondent.” “BCOL” represents “male target person, college respondent” and “BBAY” represents “male target person, Baby Boomer respondent.”

All survey participants were informed that by returning a survey with any responses, they were giving their full consent to participate in the study, as a waiver of written consent was approved by Miami University’s Institutional Review Board. Respondents were also given contact numbers for their reference in case they became concerned that they or someone they knew had a substance abuse problem.

Analyses

For the focus group discussions, note-based analysis provided sufficient information regarding how substance abuse problems are defined. Also, as stated above, the responses to the vignettes from the discussions were not quantitatively analyzed since the purpose of the activity was to gain feedback to use in the refinement process. Notes were written after the discussions based on note-takers input and listening to the tape recordings. The key terms of “addiction” and “dependence” were identified, as well as reoccurring themes in the conversations (e.g., the effect of substance use behavior on others).

Of the 221 total survey respondents who were in the appropriate age ranges, 101 respondents were college students and 120 respondents were Baby Boomers. However, 7 Baby Boomers did not complete the survey to the appropriate standards and were therefore dropped from the sample. Ninety-nine male target forms and 115 female target forms were completed.

Once the data were entered and coded in SPSS, descriptive analyses were conducted. Other analyses included mean comparisons (t-tests and ANOVA), univariate analysis (ANCOVA), and correlations. Importantly, race was dropped early in the analysis due to the lack of variation in this characteristic of the respondents. Also, while it might be reasonable to expect that education would make a difference in severity ratings that respondents assign to targets, the majority of the Baby Boomer sample had education that extended “beyond some college.” The fact that this proportion of the Baby Boomers were highly educated and that the majority of the college students had “some college” education rendered the education variable also useless as a background variable, as it was simply an unnecessary way to explore the effects of age without using the age variable.
Chapter III: Findings

How a Problem Is Defined: Results from the Focus Group Discussions

Baby Boomer and college student participants in the focus group discussions provided a starting point for conceptualizing how substance abuse problems are defined. Several aspects of the conversations were helpful during the survey analysis and interpretation process because they provided reasoning behind responses and helped to identify important dimensions of the situation (such as fulfillment of responsibilities). (Some of these instances will be addressed in the Discussion section.) In addition, both age groups provided insights about the interchangeability of “addiction” and “dependence.”

In the Baby Boomer focus group discussion, it was repeatedly stated that those who have substance abuse problems engage in substance use behavior (and other related behavior) that is “not normal.” One participant in the college student discussion also thought that “harmful misuse” of a substance clearly indicated the existence of a problem.

All of the Baby Boomer participants emphasized that “strong” people with willpower make the decision to “fight” when life becomes difficult. The people who can be classified as substance abusers, they agreed, are “weak,” “choose the easy way out,” and “let people down” frequently.

College students agreed that a more serious problem exists when a person uses a substance alone as opposed to socially. One college student discussion participant stated that some people justify their use by saying it’s only a social habit. The second college student associated using alone with being “dependent” on the substance. The first participant later said that once a person is “dependent” on drugs or alcohol, it lowers their quality of life as well as that of those around them (which implies that a problem exists). This participant had family members with drinking problems.

In fact, all college student and Baby Boomer participants who had personal experience with substance abuse indicated that when someone’s use begins to affect others negatively, they consider the situation to be very problematic. For example, the fact that a person with problematic substance use behavior might drain their family’s savings was repeatedly addressed in the Baby Boomer discussion. One Baby Boomer pointed out that such a monetary problem may be the only way that anyone can tell that there is a problem. In response, others agreed that people around the individual may be able to tell that something is wrong if he or she is having
difficulty fulfilling responsibilities on a regular basis. Similarly, one college student thought that if a person missed class because of their substance use, their behavior would have to be considered problematic.

Throughout their discussion, the Baby Boomers used the terms “addicted” and “dependent” interchangeably; however “addicted” was the dominant choice. When asked directly, the college students agreed that the definitions of the two terms were very similar but used only the word “dependent” with the exception of one instance. This lack of discrimination between the terms supports the idea that language used in communicating about substance abuse problems has not been clearly defined. Since these terms are unclear, it is somewhat expected that any communication regarding research findings on definitions of substance abuse problems must be somewhat detailed, as will become evident below.

The Questions of Age, Gender, and Situation: Results from the Surveys

Table 1 reports descriptive characteristics of the college student and Baby Boomer respondents. The total sample size comprised 214 respondents, with 101 college students and 113 Baby Boomers. The college students ranged in age from 18 to 25; 34 percent of them were 21 at the time of the survey. The age range for the Baby Boomers was 43 to 62, with a far greater standard deviation of 5.12 years in comparison to the college students’ 1.27 years. The Baby Boomers were split approximately equally in terms of gender; however, 62 percent of the college students were female. Over 94 percent of both samples were white, and as might be expected in a college community, 61 percent of the Baby Boomers had at least a college degree. (Of course, the college students all at least had “some college” at the time of survey administration.)

Table 2 lists the order in which the quantitative results will be presented. The layers of analysis unfold beginning with age of the respondent, then transitioning into a focus on the target age and gender. The respondent’s age and gender are then added back in, followed by the discussion of the findings from the situational vignettes.
Table 1. 
Descriptive Characteristics of College Students and Baby Boomers (N = 214 )

<table>
<thead>
<tr>
<th>Variable</th>
<th>College Students</th>
<th>Baby Boomers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>Mean</td>
</tr>
<tr>
<td>Age</td>
<td>101</td>
<td>21.00</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>38</td>
<td>37.60</td>
</tr>
<tr>
<td>Female</td>
<td>63</td>
<td>62.40</td>
</tr>
<tr>
<td>Race</td>
<td></td>
<td></td>
</tr>
<tr>
<td>White/Caucasian</td>
<td>95</td>
<td>94.00</td>
</tr>
<tr>
<td>Black/African American</td>
<td>1</td>
<td>1.00</td>
</tr>
<tr>
<td>Asian</td>
<td>1</td>
<td>1.00</td>
</tr>
<tr>
<td>Hispanic</td>
<td>1</td>
<td>1.00</td>
</tr>
<tr>
<td>Other</td>
<td>3</td>
<td>3.00</td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12 years</td>
<td>17</td>
<td>15.00</td>
</tr>
<tr>
<td>Some College</td>
<td>90</td>
<td>89.10</td>
</tr>
<tr>
<td>College Degree</td>
<td>11</td>
<td>10.90</td>
</tr>
<tr>
<td>Beyond One College Degree</td>
<td>45</td>
<td>39.80</td>
</tr>
<tr>
<td>Severity Scales</td>
<td></td>
<td></td>
</tr>
<tr>
<td>College Target</td>
<td>101</td>
<td>11.00</td>
</tr>
<tr>
<td>Baby Boomer Target</td>
<td>101</td>
<td>12.10</td>
</tr>
<tr>
<td>Retired Target</td>
<td>101</td>
<td>12.96</td>
</tr>
<tr>
<td>Female</td>
<td>50</td>
<td>37.78</td>
</tr>
<tr>
<td>Male</td>
<td>51</td>
<td>36.10</td>
</tr>
<tr>
<td>Basic</td>
<td>101</td>
<td>8.60</td>
</tr>
<tr>
<td>Marijuana</td>
<td>101</td>
<td>9.53</td>
</tr>
<tr>
<td>Alone</td>
<td>101</td>
<td>11.63</td>
</tr>
<tr>
<td>Functioning</td>
<td>101</td>
<td>7.24</td>
</tr>
</tbody>
</table>

Respondent Gender/Target Gender Combination

|                       |        |        |     |     |     |        |        |     |     |     |
|                       | Female/Female | 34      |      |     |     |        |        |     |     |     |
|                       | Female/Male   | 29      |      |     |     |        |        |     |     |     |
|                       | Male/Female   | 16      |      |     |     |        |        |     |     |     |
|                       | Male/Male     | 22      |      |     |     |        |        |     |     |     |

Note. Possible scale range for College, Baby Boomer, and Retired Targets = 4 to 20; higher score indicate greater severity of problem; for Male and Female Targets =12 to 60; possible scale range for Basic, Marijuana, Alone, and Functioning = 3 to 15
Layers of Analysis

<table>
<thead>
<tr>
<th>Layers of Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age of Respondent</td>
</tr>
<tr>
<td>Age of Target</td>
</tr>
<tr>
<td>Age of Target, Age of Respondent</td>
</tr>
<tr>
<td>Age of Target, Gender and Age of Respondent</td>
</tr>
<tr>
<td>Gender of Target</td>
</tr>
<tr>
<td>Gender of Target, Age of Respondent</td>
</tr>
<tr>
<td>Age and Gender of Target, Age and Gender of Respondent</td>
</tr>
<tr>
<td>Circumstances of Target, Age of Respondent</td>
</tr>
</tbody>
</table>

Age

**Does the severity of substance abuse problem vary based on the age of the respondent?**

The severity scores assigned to the targets of all three ages differ based on the age of the respondent (p < 0.001; table 1). College students perceived the behavior described in the Basic vignettes to be less problematic than Baby Boomers did (8.60 and 10.85, respectively, on a 3 to 15 point scale; table 1).

**Does the severity of substance abuse problem vary for different ages of the target person?**

As shown in Table 3, the average severity scale score for the college student targets is 12.79, which increases to 13.46 for the Baby Boomer targets on a 4 to 20 point scale. With an even higher severity score of 13.57 for retired targets, it appears that perceptions of problematic substance use behavior increase with target age.

If we examine the confidence intervals for the severity scores, we can get an idea of how likely it is that the means of the scales are truly different from one another (table 3).

<table>
<thead>
<tr>
<th>Severity Scale</th>
<th>Mean Score</th>
<th>Confidence Interval for the Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>College Target Severity Scale</td>
<td>12.79</td>
<td>12.32 - 13.25</td>
</tr>
<tr>
<td>Baby Boomer Target Severity Scale</td>
<td>13.46</td>
<td>13.01 - 13.92</td>
</tr>
<tr>
<td>Retired Target Severity Scale</td>
<td>13.57</td>
<td>13.06 - 14.07</td>
</tr>
</tbody>
</table>

*Note. Possible scale range = 4 to 20; higher score indicate greater severity of problem*

Based on these confidence intervals, we can infer that severity scores assigned to the college student targets are significantly different from those assigned to Baby Boomer targets or
retired targets, as the intervals share a very small range of numbers. Therefore, only in a rare situation would the means be the same in comparing the college target severity scale to either of the other two scales. However, the confidence intervals and mean scores for the Baby Boomer and retired target severity scales are quite similar, indicating that there may not be much of a difference in how the targets were perceived by the respondents. This analysis suggests that “age matters” in making decisions about the severity of substance use for various target age groups.

*Does the severity of substance abuse problem vary for different ages of the target person based on the age of the respondent?*

Separating the respondents by age group provides a much clearer understanding of the data (figure 1). The confidence intervals and means shown in Table 4 and Figure 1 indicate that college students had more diverse opinions regarding targets of the three different ages (11.00, 12.10, and 12.96, respectively), whereas the Baby Boomers’ assigned ratings are more consistent across all of the age-specific severity scales (14.38, 14.68, and 14.11, respectively, for college students, Baby Boomers, and retired targets).

**Figure 1.**

**Mean Severity Scores for Target Age by Respondent Age**

- **Mean Severity Score**
  - College Respondent
  - Baby Boomer Respondent

**Target Age Severity Scale**

*Note.* Possible scale range = 4 to 20; higher score indicates greater severity of problem.
Mean Severity Scores for Target Age by Respondent Age

<table>
<thead>
<tr>
<th>Target Age Severity Scale</th>
<th>College Respondent Mean (SD)</th>
<th>Baby Boomer Respondent Mean (SD)</th>
<th>T</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>College Target Severity</td>
<td>11.00 (2.58)</td>
<td>14.38 (3.41)</td>
<td>-8.23</td>
<td>0.000</td>
</tr>
<tr>
<td>Baby Boomer Target Severity</td>
<td>12.10 (2.97)</td>
<td>14.68 (3.26)</td>
<td>-6.03</td>
<td>0.000</td>
</tr>
<tr>
<td>Retired Target Severity</td>
<td>12.96 (3.59)</td>
<td>14.11 (3.78)</td>
<td>-2.27</td>
<td>0.025</td>
</tr>
</tbody>
</table>

Note. Possible scale range = 4 to 20; higher score indicates greater severity of problem.

The college students consistently reported that all targets had significantly less of a problem in comparison to Baby Boomers (p ≤ 0.025; table 4). Interestingly, the college students thought that the retired targets had the highest degree of problem while the Baby Boomers thought that the targets who were 45 years old had a greater problem than did the college student respondents (12.96 and 14.68, respectively). The difference in these severity scores can be attributed to in-group favoritism among the college students (Social Identity Theory), as they may have been trying to assert that their own age group did not have a problem with substance abuse by giving the target who was 21 the lowest severity rating. In contrast to this finding, college students later indicated that alcohol and illicit drug abuse is only a “possible problem” among older adults while it was a definite “problem” among individuals their own age.

In opposition to the college students, judgments made by Baby Boomers cannot possibly be attributed to in- and out-group thinking. Instead of rating the male or female target in their own age group as having the lesser problem (which would be consistent with Social Identity Theory), Baby Boomers rated these targets as having the greatest severity of problematic behavior of all the different aged targets. Thus, another concept must be more applicable to the Baby Boomers’ decision making process regarding the severity of substance use behavior.

Age and Gender

Does the severity of substance abuse problem vary for different ages of the target person based on the gender and age of the respondent?

In order to explore how powerful the effects of age are in defining substance abuse problems, they need to be separated from gender effects, since gender can be a powerful influence on stereotyping and in-group identity. Even when the effects of gender are removed, respondent age differences in perceptions of problematic behavior persist (p ≤ 0.01; table 5).
other words, *regardless of their gender*, Baby Boomers and college student respondents rated substance use behavior differently.

[Table 5 about here]

Since respondent age effects remain significant even after the removal of gender effects, we know that age effects do override gender effects, just as the literature suggests. However, there is a significant gender trend among both age groups. In reference to male respondents, female respondents rated all targets as experiencing a higher degree of substance abuse problem, as shown in Table 5. For example, while male college students rated the college student targets as behaving in a manner that was mid-way between a “possible problem” and a “problem” (10.40), the female college students thought the same targets had behavior much closer to an actual “problem” (11.37). In considering the above discussion on Social Identity Theory, it is not surprising that these mean severity scores (assigned by male and female college respondents to college age targets) are the lowest ratings of any assigned to a given target by male or female college students.

What is inconsistent with Social Identity Theory is that Baby Boomer respondents also thought the college age targets had the least problematic behavior of all the targets. Both male and female Baby Boomers indicated the college targets had mid-way between a “problem” and a “serious problem” (14.00 and 14.73). In keeping with the respondent gender trend, female Baby Boomers gave the college targets a slightly higher “problem” rating than did the male Baby Boomers.

Even more contradictory to Social Identity Theory is that both male and female Baby Boomers assigned the highest severity scores to the Baby Boomer targets (14.31 and 15.02). Again the respondent gender trend is continued: the female Baby Boomers actually assigned the highest score of all (15.02) to their own age group, which represents nearly a “serious problem.” These findings suggest that the hypothesis involving in- and out-group stereotyping does not explain all of the age differences in respondent perceptions of substance abuse problems.
Table 5.

Mean Severity Scores for Target Age by Respondent Gender and Age

<table>
<thead>
<tr>
<th>Target Age Severity Scale</th>
<th>Female College Respondent</th>
<th>Female Baby Boomer Respondent</th>
<th>Male College Respondent</th>
<th>Male Baby Boomer Respondent</th>
</tr>
</thead>
<tbody>
<tr>
<td>College Target Severity</td>
<td>11.37 (2.42)</td>
<td>14.73 (3.04)</td>
<td>10.40 (2.75)</td>
<td>14.00 (3.77)</td>
</tr>
<tr>
<td>Baby Boomer Target Severity</td>
<td>12.57 (2.88)</td>
<td>15.02 (2.94)</td>
<td>11.32 (3.01)</td>
<td>14.31 (3.57)</td>
</tr>
<tr>
<td>Retired Target Severity</td>
<td>13.73 (3.60)</td>
<td>14.88 (3.10)</td>
<td>11.68 (3.25)</td>
<td>13.26 (4.28)</td>
</tr>
</tbody>
</table>

*Note. Possible scale range = 4 to 20; higher score indicate greater severity of problem

*p ≤ 0.047 for all severity scales as dependent variables in ANCOVA*
Does the severity of substance abuse problem vary for different genders of the target person?

Given the evident respondent gender trend and literature regarding gender stereotypes, it is logical that gender of the target may have also played a role in how respondents formed opinions about the substance use behavior presented in the scenarios. The above question is parallel to our second question about the age of the target person (table 3, page 26), except this time we want to know if there are differences in the severity scores for the different genders of targets. We use the same analytic strategy of computing means and confidence intervals.

As shown in Table 6, respondents (analyzed collectively) gave the male targets a mean score of 38.86, which translates as a “problem” on a 12 to 60 point scale. However, female targets received a higher severity score of 41.66, which represents behavior mid-way between a “problem” and a “serious problem.” Just as with the question about target age, the confidence intervals for the target gender severity scores share only a small range of numbers, showing that it is unlikely that the actual means of both the severity scales fall within this small range. Therefore, we can be reasonably certain that the female targets received higher severity scores than did the male targets.

Table 6.

<table>
<thead>
<tr>
<th>Severity Scale</th>
<th>Mean Score</th>
<th>Confidence Interval for the Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male Target Severity Scale</td>
<td>38.86</td>
<td>36.98 - 40.74</td>
</tr>
<tr>
<td>Female Target Severity Scale</td>
<td>41.66</td>
<td>39.89 - 43.43</td>
</tr>
</tbody>
</table>

*Note. Possible scale range = 12 to 60; higher score indicate greater severity of problem*

Does the severity of substance abuse problem vary for different genders of the target person based on the age of the respondent?

The results of the above analysis give reason to explore if one age group is mainly responsible for the assignment of the different severity scores to the male and female targets. As shown in Figure 2, both college age respondents and Baby Boomer respondents thought that the female targets had a higher degree of problem. The college students assigned the male targets a score of 36.10 on the 12 to 60 point scale, whereas the female targets received a slightly higher score of 37.78 (table 7). Both of these scores approximately represent a “problem.” The Baby Boomers, however, were a little more critical of the female targets in comparison to the male
targets than were the college students. The Baby Boomers assigned the female targets a mean score of 44.65 on the same scale. This score is much closer to representing a “serious problem” than the severity score the Baby Boomers assigned to the male targets (41.79, same scale; table 7). Overall, the fact that both the college students and the Baby Boomers perceived the female targets to have more problematic behavior than the male targets indicates a possible target gender trend in addition to the already established respondent gender trend.

![Mean Severity Scores for Target Gender by Respondent Age](image)

**Mean Severity Scores for Target Gender by Respondent Age**

*Note. Possible scale range = 12 to 60; higher score indicates greater severity of problem.*

<table>
<thead>
<tr>
<th>Target Gender Severity</th>
<th>College Respondent</th>
<th>Baby Boomer Respondent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male Target Severity</td>
<td>36.10 (7.30)</td>
<td>41.79 (10.57)</td>
</tr>
<tr>
<td>Female Target Severity</td>
<td>37.78 (8.79)</td>
<td>44.65 (9.14)</td>
</tr>
</tbody>
</table>

*Note. Possible scale range = 12 to 60; higher score indicates greater severity of problem.*
What is equally important is that once again, there is a noticeable respondent age trend. College students thought the behavior described in the scenarios was less problematic than the Baby Boomers did: the severity scores assigned by college students are significantly lower than those assigned by Baby Boomers (p ≤ 0.01; table 7). The new information from this analysis is that this difference based on respondent age exists regardless of the targets’ gender.

Does the severity of substance abuse problem vary for the age and gender of the target person based on the age and gender of the respondent?

We have established above that female respondents assigned higher severity scores to targets of all ages. Also, female targets received higher severity scores than did male targets from respondents of both age groups. Since either the respondents or targets have been analyzed collectively in the analyses considering gender so far, the next step is to separate them by age and gender at the same time. Results from this analysis are shown in Table 8. This will allow us to make a confident decision regarding in- and out-group thinking.

[Table 8 about here]

As Table 8 shows, both male and female college students rated student targets in the opposite gender group as having less of a substance abuse problem than the student target of their own gender. That is, college females rated the target in their in-group as having more of a problem than the college male target, although both severity scores approach what represents a “problem” on the scale (11.50 and 11.21, respectively). Male college students also assigned similar gender out-group severity ratings for the target in their age group (10.50 for the college male target and 10.25 for the college female).

As might be expected from the results regarding Baby Boomer targets and respondents in previous questions, both male and female Baby Boomers gave the targets in their own age and gender groups the highest scores (14.68 and 16.06, respectively). Also, these scores are the highest scores for any targets assigned by either respondent age group, with female Baby Boomers having rated their in-group as having the most problematic behavior. Clearly, trying to apply the Social Identity Theory does not make sense in this case since respondents gave targets who were the most representative of themselves to have the highest level of substance abuse problem. Furthermore, the overall gender findings directly contradict the Theory, as both males
Mean Severity Scores for Target Gender and Age by Respondent Gender and Age

<table>
<thead>
<tr>
<th>Target Gender and Age Severity Scale</th>
<th>Female College Respondent</th>
<th>Female Baby Boomer Respondent</th>
<th>Male College Respondent</th>
<th>Male Baby Boomer Respondent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female Target</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>College Severity</td>
<td>11.50 (2.58)</td>
<td>15.55 (2.53)</td>
<td>10.25 (2.82)</td>
<td>13.91 (3.78)</td>
</tr>
<tr>
<td>Baby Boomer Severity</td>
<td>13.74 (2.87)</td>
<td>16.06 (2.09)</td>
<td>12.44 (3.05)</td>
<td>14.44 (3.43)</td>
</tr>
<tr>
<td>Retired Severity</td>
<td>14.44 (4.05)</td>
<td>15.64 (2.45)</td>
<td>11.06 (3.11)</td>
<td>13.63 (4.03)</td>
</tr>
<tr>
<td>Male Target</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>College Severity</td>
<td>11.21 (2.24)</td>
<td>13.69 (3.36)</td>
<td>10.50 (2.76)</td>
<td>14.14 (3.83)</td>
</tr>
<tr>
<td>Baby Boomer Severity</td>
<td>12.97 (2.37)</td>
<td>14.38 (2.99)</td>
<td>12.18 (3.10)</td>
<td>14.68 (3.88)</td>
</tr>
<tr>
<td>Retired Severity</td>
<td>12.90 (2.83)</td>
<td>13.92 (3.59)</td>
<td>12.14 (3.34)</td>
<td>12.73 (4.66)</td>
</tr>
</tbody>
</table>

*Note.* Possible scale range = 4 to 20; higher score indicate greater severity of problem

*Note.* Please see descriptive characteristics for sample sizes and quantity of gender forms

*p ≤ 0.012, age effect

*p ≤ 0.011, gender effect
and females (Baby Boomers and college students) assigned the highest severity ratings to their own gender group. Thus, this deeper examination of age and gender provides us with confirmation that in- and out-group comparisons are most likely not responsible for decisions made about targets and their substance use behavior.

It is important to emphasize that although these differences are all theoretically relevant and very interesting, respondent gender only makes a significant difference in the assignment of problematic ratings for the three female target severity scales \( (p \leq 0.01; \) table 8). In other words, whether a respondent is male or female does not account for any differences in perception of the three male targets. This finding is somewhat disconcerting, as it means that there are definite disparities between how males view female targets and how females view female targets, but the same does not hold true when it comes to evaluating males.

Since respondent gender makes a significant difference in evaluating the three female targets, it is appropriate to discuss the gender trends only in reference to these targets. Table 8 shows that the target gender trend is reinforced, as all female respondents gave higher severity scores to all of the female targets than they did to the male targets. Even though four of the highest scores assigned by male respondent scores were to male targets as opposed to female targets, the majority of the scores given to the female targets (assigned by males and females) are higher than those assigned to male targets. This finding supports the trend related to gender of the target person. Also, the respondent gender trend is continued, as all but two of the severity scores assigned by females of both age groups are higher than those assigned by the male respondents.

Importantly, the established trend in differences based on target age is also supported in this gender-specific analysis. As outlined above, this trend is for the college student targets to have had the least severe substance abuse problem according to all respondents except male Baby Boomers, who thought that the retired target had less of a problem. In this gender-specific analysis, both male and female college targets received the lowest severity scores from everyone but the male Baby Boomers, who instead thought the retired female target had less of a problem than other female targets. It is also noteworthy that the standard deviation is particularly high for this score assigned by male Baby Boomers to retired female targets (4.03 for a mean of 13.63), indicating disagreement amongst male Baby Boomers over the scenario presented for the female
retired target. Otherwise, there was a consensus among most respondents that the college student targets had the least severe problem.

Even more striking is the dominant trend in differences based on respondent age. In all but one scenario, Baby Boomers rated substance abuse problems as more serious than did the college student respondents (p ≤ 0.01). For example, if we look at the severity scores assigned to the female college target, we see that the female college students gave the target a mean score of 11.50 on the 4 to 20 point scale; this is not even representative of a “problem.” In contrast, the female Baby Boomer respondents gave the female college target a mean score of 15.55, which is representative of nearly a “serious problem.” As will be addressed in Chapter IV, the college student respondents may have been influenced by the “college culture” that exists at many universities-- that it is part of college life to “party.” Baby Boomers, on the other hand, are in a different mindset where excessive drinking on a regular basis is not viewed as an acceptable behavior. Baby Boomers may therefore have seen the substance use behavior presented in the vignettes as more problematic than did the college students.

One may note that the lack of a general consensus among respondents concerning retired targets is a reoccurring issue, as the standard deviations for the retired target severity scales are generally higher than those for the other targets. For example, the male Baby Boomers’ standard deviation for the mean severity score assigned to the retired male target is 4.66, which means that individual scores had a high degree of variance and ranged even more broadly than from a “possible problem” to a “serious problem.”

Situational Considerations and Age

Does the severity of substance abuse problem vary for each situation based on the age of the respondent?

This section discusses the severity ratings assigned by respondents of the two different age groups for the initial vignettes and their sub-questions. As a reminder, the initial vignette question and the first sub-question for the college female target are provided below:

-------------------------------
1. Annie is 21 and a college student. She usually goes out with friends 2 or 3 nights a week and typically has around 4 or 5 drinks every time she’s out. She sometimes misses class because of her drinking. To what degree does Annie have a substance abuse problem?

No Problem At All Possible Problem Problem Serious Problem Very Severe Problem
1a. What would your answer to the above question have been if the substance involved was marijuana (i.e. smoking one joint 3 times a week)?

<table>
<thead>
<tr>
<th>No Problem At All</th>
<th>Possible Problem</th>
<th>Problem</th>
<th>Serious Problem</th>
<th>Very Severe Problem</th>
</tr>
</thead>
</table>

Once again, in order to determine whether there are significant differences in respondent severity scores, means are compared. Following the same logic regarding analysis of confidence intervals used in prior questions, Table 9 shows that, except for the Baby Boomers’ ratings of the initial vignettes and marijuana severity scales, there is not much of an overlap of the intervals. This indicates that there is only a small likelihood that the means for the various scales are the same. Thus, the situations were nearly always perceived differently by college students and by Baby Boomers based on legality, social context, and ability to fulfill responsibilities on a regular basis (or function).

Table 9.

<table>
<thead>
<tr>
<th>Respondent</th>
<th>Severity Scale</th>
<th>Mean Score</th>
<th>Confidence Interval for the Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>College Student</td>
<td>Basic Severity Scale</td>
<td>8.60</td>
<td>8.16 - 9.05</td>
</tr>
<tr>
<td></td>
<td>Marijuana Severity Scale</td>
<td>9.53</td>
<td>9.00 - 10.07</td>
</tr>
<tr>
<td></td>
<td>Alone Severity Scale</td>
<td>11.63</td>
<td>11.17 - 12.09</td>
</tr>
<tr>
<td></td>
<td>Functioning Severity Scale</td>
<td>7.24</td>
<td>6.73 - 7.74</td>
</tr>
<tr>
<td>Baby Boomer</td>
<td>Basic Severity Scale</td>
<td>10.85</td>
<td>10.41 - 11.29</td>
</tr>
<tr>
<td></td>
<td>Marijuana Severity Scale</td>
<td>10.57</td>
<td>10.05 - 11.08</td>
</tr>
<tr>
<td></td>
<td>Alone Severity Scale</td>
<td>12.04</td>
<td>11.56 - 12.51</td>
</tr>
<tr>
<td></td>
<td>Functioning Severity Scale</td>
<td>10.10</td>
<td>9.52 - 10.67</td>
</tr>
</tbody>
</table>

Returning to the question of whether “age matters,” we see here the continuing trend of differences in ratings based on the age of respondent for most of the situational severity scales (figure 3 and table 10). Similar to the target age and gender severity scales, the college students thought that three out of the four situations were less problematic than the Baby Boomers. For example, in the basic severity scale, college students rated the targets as having a score representative of nearly a “problem” while Baby Boomers leaned closer to a “serious” rather than just a “problem” (8.60 and 10.85, respectively, on a 3 to 15 point scale).
Figure 3.

Mean Severity Scores for Target Situation by Respondent Age

<table>
<thead>
<tr>
<th>Target Situation Severity Scale</th>
<th>College Respondent</th>
<th>Baby Boomer Respondent</th>
<th>t</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic Severity</td>
<td>8.60 (2.24)</td>
<td>10.85 (2.37)</td>
<td>-7.10</td>
<td>0.000</td>
</tr>
<tr>
<td>Marijuana Severity</td>
<td>9.53 (2.73)</td>
<td>10.57 (2.74)</td>
<td>-2.75</td>
<td>0.006</td>
</tr>
<tr>
<td>Alone Severity</td>
<td>11.63 (2.33)</td>
<td>12.04 (2.57)</td>
<td>-1.19</td>
<td>0.234</td>
</tr>
<tr>
<td>Functioning Severity</td>
<td>7.24 (2.56)</td>
<td>10.10 (3.08)</td>
<td>-7.34</td>
<td>0.000</td>
</tr>
</tbody>
</table>

Note. Possible scale range = 3 to 15; higher score indicates greater severity of problem

However, there is not much of a respondent-age difference in the mean severity scores for the social context scenario where the targets drink alone; both respondent groups saw this situation as most problematic (11.63 for college students and 12.04 for Baby Boomers). This agreement amongst college students and Baby Boomers when it comes to drinking alone...
supports the literature reviewed in Chapter I which establishes that drinking with others is more acceptable in our society than is drinking alone.

Conversely, the lowest severity score is for the vignette about the targets who can fulfill their responsibilities on a regular basis. This finding is also somewhat expected based on the focus group participants’ perceptions of their experiences with others. This functioning severity scale is also consistent with the respondent age trend. Not only is it another example of college students having given significantly lower scores to targets in comparison to Baby Boomers in terms of how severe a substance abuse problem is, but the amount of difference between the mean scores is quite substantial. Whereas college students gave a score representative of about a “possible problem” at 7.24, Baby Boomers gave a rating between a “problem” and a “serious problem” at 10.10. These findings solidify the importance of age as a variable when considering what factors contribute to perceptions made about substance abuse problems.

In addition, age and gender of the person in the situation has been found to play a role in some decisions among college students and Baby Boomers, most notably among females engaging in the substance use behavior. Finally, we have seen that the notion of in- and out-group stereotyping does not help in explaining patterns behind college students’ or Baby Boomers’ decision making process. Instead, concepts that may be of greater use are age norms and what can be termed the “growing-up” effect, as is discussed in the following chapter.
Chapter IV: Discussion and Implications

This Chapter provides a review of the major age-related findings and theoretical constructs that have been helpful in making connections among the outcomes from this study. Most importantly, the lack of consistency with Social Identity Theory is exchanged for the more appropriate age-normative framework. Limitations regarding focus group sample size and implications for families are then addressed. Finally, suggestions for future research and this study’s importance are discussed.

Discussion

A Refined Theoretical Model is provided on page 40 which shows the frameworks which help in understanding links between various outcomes of this study. As in the previous Model, society’s influence on how we assign meaning to information directly contributes to how we define substance abuse problems. This is a process of categorization. At the outset of this project, in- and out-group thinking, stereotypes, and attribution errors were the main frameworks for understanding how respondents might categorize targets in the vignettes. However, based on the analyses discussed in Chapter I, it appears that respondents did not categorize the targets as the main method of assessment. Instead, the Refined Model reflects the greater likelihood that when they assigned severity scores, respondents categorized the targets’ actual substance use behavior. Thus, although age stereotypes and in- and out-group thinking are still useful in certain respects to explain differences or trends in severity scores, they do not supply us with the full story. Instead, age norms and the “growing-up” effect are more suitable concepts that help to explain patterns in the findings.

The Previous Theoretical Constructs

From initial analysis, it appeared that in- and out-group thinking could very well explain college student responses. College students thought that student targets had the least problematic behavior overall. However, in more detailed analysis of age and gender, we learned that college students assigned higher scores to their own gender group. Therefore, if college student in-group thinking was involved in their decisions regarding the severity of substance abuse problems, only the age of the target could have been used during categorization. The fact that the college students assigned the higher severity scores to targets in their own gender groups directly contradicts the idea of maintaining a positive view of one’s in-group.
Refined Theoretical Model: Conceptual

Social Construction of Meaning

Age Norms
- Substance abuse during college as rite of passage
- Age Stereotypes
  - Categorization of Others

“Growing-up” Effect

Categorization of Behavior

Definition of Problem
Solidifying the idea that Social Identity Theory cannot account for reasoning behind decisions made by respondents are some of the results from the Baby Boomer surveys. Baby Boomers not only thought the college targets had the least problematic behavior, but then gave their own gender and age groups the highest scores. This means that the Baby Boomers provided responses that were exactly the opposite of those which we could attribute to Social Identity Theory. It seems that another theoretical construct must be able to identify logic behind perspectives of both age groups when they define substance abuse problems for different aged targets. Therefore, in- and out-group thinking is no longer included in the Refined Model.

Still included in the Refined Model are age stereotypes, but without their association to in- and out-group thinking. Also, our social experiences are at least partially responsible for how we develop stereotypical ways of thinking about others. For this reason, age stereotypes are now placed directly under the overarching concept of the social construction of meaning. Since college students (when analyzed collectively) thought the retired targets had the highest degree of substance abuse problem, it is possible that negative age stereotyping (see Robinson & Umphery, 2007 and Cuddy et al., 2005) took place. As in the first Conceptual Model, this method of defining the severity of substance abuse problem is still based on the categorization of others. However, since age stereotyping does not explain patterns in the rest of the findings, it is given less emphasis in the Refined Model.

Yet another difference between the two models is that fundamental attribution errors have been omitted from the Model. Baby Boomer focus group participants did attribute the fact that individuals who had substance abuse problems were using because they were “weak” (a personality flaw), however they did not think that only people in other age groups lacked the strength to “fight.” Had that been the case, then we could attribute decisions made to ultimate attribution errors. Instead, it is far more likely that the differences in survey responses are due to different standards held for different aged individuals. As is discussed below, the concept of age norms supports this idea and is therefore added to the Model.

The New Concepts

Settersten and Hagestad (April, 1996; October, 1996) review previous works by Neugarten and others which establish that society heavily influences cultural age expectations, or age norms. More specifically, the age-normative framework focuses on the idea that there are work, educational, and family-related deadlines that members of society are expected to meet.
Individuals keep track of these deadlines in reference to how far they (and others) have progressed along a timetable of life events. For example, Settersten and Hagestad (October, 1996) found that there is approximately a 6-year age range most commonly exists for work deadlines, including settling on a career for men and entering the labor force for women. It makes sense that we then have some expectations about behavior for certain age groups resulting from the influence of age norms. Respondents in this study most likely compared the substance use behavior given in the vignettes to the behavior they believed to be appropriate for people of the targets’ ages. The Refined Model shows that because they played such a significant role in these comparisons, age norms mediated how respondents categorized the behavior on the response scale. This process was how the “degree (to which the person had) a substance abuse problem” was defined. Therefore, considering a relevant age norm becomes the next topic of discussion, as it provides considerable insight into the target age trend.

An example of an age norm in the United States is that of the college years as a rite of passage. In our society, most would expect a traditional college student’s life to include experiences like living in a dorm, writing papers, studying at the last minute for finals, dating, and “partying” with friends. This “partying” may be a more serious issue than most students realize. In a 2007 report, the National Center on Addiction and Substance Abuse at Columbia University review the finding that “22.9 percent…(of) full-time college students met diagnostic criteria\(^1\) for alcohol and/or drug abuse or alcohol and/or drug dependence” in 2005 (p. 35).

The Chairman and President of the Center, Joseph A. Califano, Jr., writes in the report’s accompanying statement that society is influencing students to “consider substance abuse a harmless rite of passage” (p. ii, 2007). This concept could very well qualify as an age norm that has long existed, as Nuwer (1999) writes of binge drinking problems dating back to the earliest days of universities. Consequently, substance abuse during college years as a rite of passage is included in the Refined Model within the age-normative framework.

In *Wrongs of Passage: Fraternities, Sororities, Hazing, and Binge Drinking*, Nuwer (1999) discusses that students may drink even though they attend a university or belong to a fraternal organization that is “dry.” Taking this into consideration, it is not surprising that drinking on other campuses has become the central focus of certain long-standing traditions, including the “Nude Olympics,” the “Naked Mile,” and “Coed Naked Soccer” (Reisberg, 2000).

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\(^1\) According to the Diagnostic and Statistic Manual of Mental Disorders (DSM-IV).
These traditions probably do not mollify the perception discussed by Crawford and Novak (2006) that the college environment generally encourages substance abuse. One Baby Boomer survey respondent even made reference to “Green Beer Day” after writing that he “believe(s) college is the last hurrah” and it is a “right” for 21-year-olds to drink. Clearly, the Baby Boomer’s statements increase support for the concept of heavy drinking while in college to be considered a rite of passage. Thus, the finding that respondents consistently rated student targets to have the lowest degree of substance abuse problem (i.e., the target age trend) can be explained by society’s acceptance of the behavior during this life phase.

The concept of substance abuse as a rite of passage is also useful in discussing the respondent age trend. Baby Boomers have “grown” out of the “college mindset” where heavy drinking is acceptable into the “adult mindset” where excessive drinking is a disruption of family life and having a successful career. However, it is not only the Baby Boomers’ distance in years (i.e., actual time) from the college mindset that is of importance, but the mental distance from this mindset that accompanies the wisdom gained as progression through the timetable of life events occurs. In other words, as more life events are experienced, fundamental perspectives evolve.

As established above, the life events on the timetable are those which most people experience (e.g., finishing school, becoming financially independent, starting a family, etc.). Obviously, everyone does not experience these events in the same way or gain the exact same knowledge. Regardless of such individual differences, most everyone adjusts their thinking in a somewhat similar way as they “grow up” and into the “adult” mindset. Thus, commonalities in how our mindsets change during this maturing process termed the “growing-up” effect. This “growing-up” effect and its resulting “adult” mindset shed light on why college students assigned lower severity scores to all of the targets in comparison to those assigned by the Baby Boomers. Not only were the college students in the rite of passage mindset at the time of the survey, but they had also not experienced the “growing-up” effect. For these reasons, the “growing-up” effect is shown in the Refined Model as another influence upon the categorization of behavior.

In summary, the constructs reviewed in Chapter I alone do not provide us with adequate reasoning behind how respondents defined the severity of the substance abuse problems. Rather than categorizing the targets who were described in the vignettes, it seems respondents employed
the age-normative framework in categorizing the substance use behavior. The differences in perceptions held about the different aged targets’ behavior can be attributed to the age norm of “partying” during college years. After members of society experience more life events, an “adult” level of maturity is reached (i.e., the result of the “growing-up” effect). The disparities between this mentality and the “rite of passage” mindset account for the differences in perceptions of the substance use behavior that are based on respondent age.

Limitations

One major limitation of this study was that there were only two participants in the college student focus group discussion. This is most likely because the discussion was held outside of class time. However, as stated earlier, the students had very different views; therefore much information was gained regardless of the small group number. Furthermore, the main method of data collection was the survey, which had a higher than expected response rate from both samples.

Also, it is possible that the samples were not truly representative because the study could have seemed more important or more interesting to those who had personal experience substance use or abuse. For example, all of the participants in the Baby Boomer focus group knew someone who had a substance abuse problem. A suggestion for discovering if this is the case in future similar studies is to include a question asking about personal experiences with substance abuse; however, the addition of this question would mean that the focus of such a study would not be on only respondent perceptions.

Finally, since the Baby Boomers assigned fairly consistent severity ratings representative of over a “problem” for all of the targets, it is clear they thought the given amount of alcohol was too much for anyone to consume on a regular basis. However, as the college students assigned severity scores to the student targets that represent behavior below the “problematic” level, we do not know what they do think qualifies as a substance abuse problem during college years. Perhaps a future study could increase the number of drinks and the frequency of drinking in similar vignettes in order to further explore the “rite of passage” mindset.

Implications

Quite importantly, family members should make it very clear that the actions of their children affect those who care about them. This was by far the dominant theme among participants with personal experience regarding substance abuse in the Baby Boomer focus
Treatment and education programs should also continue to reach out to families of those who have substance abuse problems. For example, educational activities and counseling programs for Baby Boomers could include their children to help them in understanding and recognizing when behavior becomes problematic.

However, Baby Boomers appear to have pretty clear standards for socially constructed age-appropriate behavior, as they repeatedly picked the targets in their own age group to have the most problematic behavior. This finding conflicts with the initial concept that the most urgent problem lies in recognizing substance abuse behavior among Baby Boomers, as they may have “maintained the mindset of the 1960’s.” Had this hypothesis been supported, there would have been a generational (or cohort) effect. Instead, age norms and the “growing-up” effect point to the idea that while substance abuse among Baby Boomers and older adults remains an issue worthy of much attention, perhaps it is college students who are in the greatest need of intervention and education. As has been established, college students’ responses indicated that they perceived the targets of their own age to have less than “problematic” behavior when the targets drank at least eight drinks on only two or three nights a week on a regular basis. This finding implies that existing efforts should continue to be made on college campuses in an attempt to curb binge drinking among students. These efforts typically focus on negative consequences for all students who engage in drinking rituals on college campuses. However, as Larimer, Kilmer, and Lee (2005) discuss, there are effective interventions aimed at the theoretical processes involved in behavior change on an individual level. These strategies include motivational enhancement, norms clarification, and challenging alcohol expectancies of the students.

Overall, this study contributes to the aging and substance abuse fields by providing the main finding that college students perceived the given situations to be less problematic than did the Baby Boomers. The various scales used in the analysis served to accurately demonstrate differences between responses to the questions and correlated logically with one another. The actual labels which were assigned to the 5-point scale are useful in providing specific language to discuss a range of substance use behavior and the results of the study.

**Suggestions for Future Research**

One worthwhile analysis using the data from this project would be to complete a regression with age, then gender, then the age*gender interaction term on the three target age
severity scales as dependent variables. Separately, a focus group discussion as well as survey including a sample of older adults would add to the findings of this study and expand on the information about target and respondent age difference trends.

Other research could focus mainly on perceptions of illicit drug use among college students (or young adults), Baby Boomers, and older adults in order to add to the new findings regarding age norms and the “growing-up” effect. Also, a study combining the exploration of substance use behavior of respondents in addition to their perceptions of target behavior would be helpful in understanding any connection between the two.

Considering the value of life course research, a future longitudinal study could explore how the definitions of substance abuse change for specific respondents as they experience life events. Such a study could follow individuals over time as they “grow” out of the college mindset and begin to perceive substance use behavior as adults, which may identify the “turning point” where the behavior begins to be viewed as more problematic.

Those who benefited most from this project were most likely the study participants, and those who will hopefully benefit from the study are researchers in the field of substance use. In participating in the focus group, the Baby Boomers seemed to find comfort in talking with others who also had personal experiences with substance abuse. Other participants and respondents likely gained at least an increased awareness of the issue. Other researchers will be able to refer to the results of the study when they need an example of what two age groups think constitutes a problem and what factors contribute to its severity. More importantly, this exploration resulted in a clearer idea of how substance abuse is conceptualized, discussed, and perceived. Indeed, we now understand and appreciate that when college students and Baby Boomers make decisions about problematic substance use behavior, “age matters.”
References


Appendix I

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January 17, 2008

Dear (member/spouse),

I would like to invite you to participate in a small group discussion that a graduate student at Miami University is holding at our Center on February 7th at 11:30 am. Her name is Elizabeth Bozzelli and she is doing her thesis on people’s perceptions of substance abuse, so that will be the topic of the focus group discussion. The discussion will last until 1:00 pm. This time includes arriving 15 minutes early to enjoy a lunch of pizza, pop, salad, juice, and cookies that will provided at no cost to you.

The Center is in no way connected with Elizabeth’s study, but she has our permission as approved by the Institutional Review Board to conduct research here. I have met with her personally. She is very excited to have the opportunity to meet with you and learn about your opinions about the definition substance abuse. She has also prepared a short, optional questionnaire on the topic that will be part of the activity. Finally, you will be free to leave or just sit and listen at any point if you feel uncomfortable during the discussion.

If you are interested in participating in the focus group, please contact Elizabeth at: (989) 600-0934 (cell phone) or e.bozzelli@gmail.com. Thank you for your time!

Sincerely,

Joan Potter-Sommer
*The Chair of Elizabeth’s thesis committee is Suzanne Kunkel at (513) 529-2914 or e-mail: kunkels@muohio.edu. If you have questions about your rights as a research participant, please call the office of Advancement of Research and Scholarship at (513) 529-3600 or e-mail: humansubjects@muohio.edu.

*For information about drug and alcohol abuse, contact The National Alcohol and Substance Abuse Information Center at 1-800-784-6776, or http://www.addictioncareoptions.com/home.asp.

*If you think you or someone you know may have a substance abuse problem, please contact The Watershed Addiction Treatment Programs at 1-800-861-1768, or http://www.thewatershed.com/Index.html for a free assessment and/or referral. Or, if you/they are a student at Miami University, you can also call the Student Counseling Service at (513)529-4634.

College Student Focus Group Discussion Recruitment Announcement

Good morning/afternoon. My name is Elizabeth Bozzelli and I am a graduate student here at Miami. I am doing a study on students between the ages of 18 to 24 and their perceptions of substance abuse. I’m looking for participants in a focus group on [date and time]. The discussion will last for an hour and 15 minutes and there will be free pizza and pop. If you are interested, please e-mail me at the address on this page and let me know. Thank you!

College Student Focus Group Discussion Recruitment Information Page

Between the ages of 18 and 24?
Interested in the focus group you heard about in class today?
E-mail Elizabeth Bozzelli if you would like to participate!
bozzelek@muohio.edu

You are invited to have free pizza and pop while having a discussion about perceptions of substance abuse. Part of the discussion will involve talking about three hypothetical individuals in specific situations and what you think of their behavior, which will involve filling out a brief questionnaire. The entire focus group discussion/activity will last for one hour and 15 minutes.

DATE: [date]
TIME: [time]

*If you have any questions about the study, please contact Suzanne Kunkel at (513) 529-2914 or e-mail: kunkels@muohio.edu. If you have questions about your rights as a research participant, please call the office of Advancement of Research and Scholarship at (513) 529-3600 or e-mail: humansubjects@muohio.edu.

College Student Focus Group Discussion Recruitment Blackboard Advertisement

Are you between the ages of 18 and 26?
Do you like FREE FOOD and interesting conversation?
My name is Elizabeth Bozzelli and I am a graduate student here at Miami. I am doing a study on students and their ideas about substance use. (Not your own behavior-more perceptions of what you think qualifies as substance abuse.) I’m looking for participants in a focus group discussion on Wednesday February 20th from 4:15 to 5:30 pm. There will be FREE pizza, pop, salad, and juice provided during the activity. If you are interested, please e-mail me at bozzelek@muohio.edu. Thank you!

*If you have any questions about the study, please contact Elizabeth or Suzanne Kunkel at (513) 529-2914 or e-mail Dr. Kunkel at kunkels@muohio.edu. If you have questions about your rights as a research participant, please call the office of Advancement of Research and Scholarship at (513) 529-3600 or e-mail: humansubjects@muohio.edu.
Focus Group Discussion Informed Consent Form

Thank you for your time and your interest in this conversation! As you know, this focus group discussion is part of a study that explores perceptions of substance use. Adrienne/Karisha and I want to find out about your individual perceptions of substance abuse. I want to be clear that we are not interested in your own behavior during this discussion, but we will be talking about what you think of hypothetical situations that involve others. We will have a guided discussion regarding the topic for the first section of time at which point I will distribute some hypothetical scenarios that are followed by questions. Once you have provided your answers, we’ll discuss your responses. The session will last for one hour and 15 minutes, ending at _____.

The risks involved in this activity are minimal and likely to be limited to the type of information you choose to disclose. Everyone in the group is encouraged to treat this discussion as confidential. Information that you provide will be treated as confidential by the researchers and you will not be identified by name in resulting publications, presentations, or reports. You also do not have to give your name in any way other than by signing this form. The benefit of this study, scientifically, is that it will help in understanding how substance use is conceptualized.

Your participation in this study is completely voluntary and that refusal to participate will not result in any denial of benefits (i.e. the food). Also, if you become uncomfortable at any point, you may end your participation or refuse to answer certain questions without the above penalty. If you sign below and agree to participate, you will also be agreeing to be audio taped during the activity and acknowledging that a note taker is present.

If you have any questions about the study, please contact me at bozzelek@muohio.edu. You may also contact Suzanne Kunkel at (513) 529-2914 or e-mail: kunkels@muohio.edu. If you have questions about your rights as a research participant, please call the office of Advancement of Research and Scholarship at (513) 529-3600 or e-mail: humansubjects@muohio.edu.

Thank you for your participation. I am very appreciative of your help and hope that you will find the approaching discussion interesting. You may keep this portion of the page.

*For information about drug and alcohol abuse, contact The National Alcohol and Substance Abuse Information Center at 1-800-784-6776, or http://www.addictioncareoptions.com/home.asp.

*If you think you or someone you know may have a substance abuse problem, please contact The Watershed Addiction Treatment Programs at 1-800-861-1768, or http://www.thewatershed.com/index.html for a free assessment and/or referral. Or, if you/they are a student at Miami University, you can also call the Student Counseling Service at (513)529-4634.

I agree to participate in the study about perceptions of substance use. I understand my participation is voluntary and that my name will not be associated with my responses. By signing below, I acknowledge that I am 18 years or older.

Signature:______________________ Date:_________
Focus Group Discussion Guide (Basic)

*(Welcome the group and introduce self.)
*Please help yourself to the refreshments! Also, please turn off your cell phones.
*(Note to self-read first paragraph of informed consent form out loud, then provide time for them to read the rest silently and sign the form. Collect the forms.)
*Now, just to establish some ground rules, let’s try to have only one person speaking at a time, so no side conversations please. Also, I’d like to hear from everyone since all of your opinions are important to the success of this study, so please try not to dominate the conversation. This also means that there are no right or wrong answers, but just different points of view. Please share your point of view, regardless if it is positive or negative. I hope you will find this to be an intriguing activity! Are there any questions?

Initial discussion:

1. First, I would like everyone to take 2 minutes and write down on your piece of paper whatever first comes to mind when I say “substance abuse.” (2 minutes later discuss what people have written.)

Additional questions if needed for this discussion:

a. What instantly comes to your mind? What image, for example?

b. How much do you think about the terms you use when talking about substance abuse and the differences between them? (e.g. addiction, dependence, tolerance, overdosing, and the phrase “substance abuse problem”)

c. Do you feel you use any of them interchangeably?

d. How much do you think legality enters into your concept of substance abuse?

*Hand out vignettes and additional question.

Vignette discussion:

2. What kinds of images did you envision for the individuals?/What other characteristics did you give them?

3. Did you mark different responses for different people? Why?

4. Did you mark different responses for different situations? Why?

5. Did you feel that you were supposed to answer in the same way for every person regardless of their age? (Were they too obvious?)

6. Were there too many questions?

7. Were there too many choices for the answers?

8. How do you think this questionnaire could be better?

Wrap-up

9. Let’s go around the table and each state a summary of what is most important for me to remember from this discussion.

Last question:

10. Is there anything I missed or should have asked?

*Thank you for your time-your participation is greatly appreciated!
Baby Boomer Survey Recruitment Letter and Project Description

March 20, 2008

Dear ___,

My name is Elizabeth Bozzelli and I am a graduate student at Miami University completing a Masters degree. I am doing my thesis on perceptions of alcohol use. I randomly selected your name from voter registration records of Butler County. Any responses that you provide will be treated as confidential information. No one’s name will ever be attached to their responses. Throughout the analysis of the survey your responses will be identified by the number already on them, and not name. Also, no one will ever be identified by name in any resulting publications, reports, or presentations.

The forms take approximately 10 minutes to complete and I would greatly appreciate your help. If you become uncomfortable at any point, you may end your participation or refuse to answer certain questions. If you return your survey with any part of it completed, it will be understood that you are providing your consent to participate. The risks involved in this activity are not beyond those that would occur in a thoughtful conversation about substance use. The benefit of this study, scientifically, is it will help us to understand how substance use is conceptualized.

If you have any questions about the study, please contact me at bozzelek@muohio.edu. You may also contact Suzanne Kunkel at (513) 529-2914 or e-mail: kunkels@muohio.edu. If you have questions about your rights as a research participant, please call the office of Advancement of Research and Scholarship at (513) 529-3600 or e-mail: humansubjects@muohio.edu.

Thank you for your participation. I am very appreciative of your help and hope that you will find the questions interesting. Please keep this page for your records.

Sincerely,

Elizabeth K. Bozzelli
*For information about drug and alcohol abuse, contact The National Alcohol and Substance Abuse Information Center at 1-800-784-6776, or http://www.addictioncareoptions.com/home.asp.

*If you think you or someone you know may have a substance abuse problem, please contact The Watershed Addiction Treatment Programs at 1-800-861-1768, or http://www.thewatershed.com/Index.html for a free assessment and/or referral. Or, if you/they are a student at Miami University, you can also call the Student Counseling Service at (513)529-4634.

College Student Survey Recruitment Announcement

Good morning/afternoon. My name is Elizabeth Bozzelli and I am a graduate student here at Miami. (Professor’s name) has allowed me to take 10 minutes of class to pass out this survey which is part of a study I’m doing for my thesis. Please do not write your name on the survey so that only the number on the survey is associated with your responses if you decide to participate. It’s about people’s perceptions of substance abuse, so it’s very interesting. The first piece of paper is the project description, which you can keep for your records. Please read it carefully and consider if you would like to participate in the study. If you turn in a survey with answers on it, I will understand that you are providing your full consent to participate. Doing so will also indicate that you meet the requirement of being 18 years of age or older. Students under the age of 18 may not participate because parental consent would be required. This is an age-specific study, so I will be dividing the data into two groups: data collected from students over the age of 26, and data obtained from students between 18 and 26. Only data from surveys in the 18 to 26 year old group will be considered in the analysis. If you are over the age of 26, you are more than welcome to participate if you are curious about the questions and survey research, but data from your survey will not be analyzed. Thank you!
Dear Students,

You are invited to participate in the attached survey that explores perceptions of substance abuse. This study will help to raise awareness about the issue and contribute to the existing literature. Most of the survey is made up of hypothetical scenarios followed by questions asking to what degree a substance abuse problem seems to exist. The end of the survey contains more general questions.

The information you provide will be completely anonymous, as you are not giving your names and you will hand the surveys in as a group in sealed envelopes. This way, I will not be able to tell who said what. The entire survey takes approximately 10 minutes to complete.

This study is not connected with your professor or class in any way. Your participation is voluntary and you are free to turn in a blank or partially completed survey. Also, if you become uncomfortable at any point, you may end your participation or refuse to answer certain questions without any penalty. Return of a survey constitutes your full consent to participate in this study. The risks involved in this activity are not beyond those that would occur in a thoughtful conversation about substance abuse. The benefit of this study, scientifically, is it will help us to understand how substance abuse is conceptualized.

If you have any questions about the study, please contact Elizabeth Bozzelli at bozzelek@muohio.edu. You may also contact Suzanne Kunkel at (513) 529-2914 or e-mail: kunkels@muohio.edu. If you have questions about your rights as a research participant, please call the office of Advancement of Research and Scholarship at (513) 529-3600 or e-mail: humansubjects@muohio.edu.

Thank you for your participation. I am very appreciative of your help and hope that you will find the questions interesting. Please keep this page for your records.

*For information about drug and alcohol abuse, contact The National Alcohol and Substance Abuse Information Center at 1-800-784-6776, or http://www.addictioncareoptions.com/home.asp.

*If you think you or someone you know may have a substance abuse problem, please contact The Watershed Addiction Treatment Programs at 1-800-861-1768, or http://www.thewatershed.com/Index.html for a free assessment and/or referral. Or, if you/they are a student at Miami University, you can also call the Student Counseling Service at (513)529-4634.

Surveys

College Student Respondent, Female Target Survey Form

ID # PU

Substance Use/Abuse Survey

*Please circle your answer choice for the questions below.

--- “Drinks” in each question are intended to have equal alcohol content. Assume that the individuals in each of the questions are affected in the same way by the amount of alcohol ingested.

1. Annie is 21 and a college student. She usually goes out with friends 2 or 3 nights a week and typically has around 4 or 5 drinks every time she’s out. She sometimes misses class because of her drinking. To what degree does Annie have a substance abuse problem?

   No Problem At All  Possible Problem  Problem  Serious Problem  Very Severe Problem

   1a. What if the substance involved is not alcohol but marijuana (i.e. smoking one joint 3 times a week)?

   No Problem  Possible  Problem  Serious  Very Severe
   At All  Problem  Problem  Problem

   1b. What if Annie drinks alone every time instead of with her friends?

   No Problem  Possible  Problem  Serious  Very Severe
   At All  Problem  Problem  Problem

   1c. What if Annie is able to go to class every day regardless of her drinking behavior?

   No Problem  Possible  Problem  Serious  Very Severe
   At All  Problem  Problem  Problem

2. Jennifer is 45 and a business executive. She and her co-workers or spouse usually go to a local restaurant for drinks after work 2 or 3 nights a week. Jennifer typically has around 4 or 5 drinks on each of these occasions. She sometimes calls in sick to work because of her drinking. To what degree does Jennifer have a substance abuse problem?

   No Problem At All  Possible Problem  Problem  Serious Problem  Very Severe Problem

   2a. What if the substance involved is not alcohol but marijuana (i.e. smoking one joint 3 times a week)?

   No Problem  Possible  Problem  Serious  Very Severe
   At All  Problem  Problem  Problem
2b. What if Jennifer drinks alone every time instead of with her co-workers or spouse?

No Problem  Possible  Problem  Serious  Very Severe
At All     Problem     Problem     Problem     Problem

2c. What if Jennifer is able to go to work every day regardless of her drinking behavior?

No Problem  Possible  Problem  Serious  Very Severe
At All     Problem     Problem     Problem     Problem

3. Ida is 73 and a retired journalist. She and her friends from the bridge club at the local senior center usually go out for dinner 2 or 3 times a week where Ida typically has 4 to 5 drinks each time. Ida sometimes misses volunteering at the library because of her drinking. To what degree does Ida have a substance abuse problem?

No Problem  At All  Possible  Problem  Serious  Problem  Very Severe  Problem

3a. What if the substance involved is not alcohol but marijuana (i.e. smoking one joint 3 times a week)?

No Problem  At All  Possible  Problem  Serious  Problem  Very Severe  Problem

3b. What if Ida drinks alone every time instead of with her friends?

No Problem  At All  Possible  Problem  Serious  Problem  Very Severe  Problem

3c. What if Ida is able volunteer at the library every day regardless of her drinking behavior?

No Problem  At All  Possible  Problem  Serious  Problem  Very Severe  Problem

________________This is the end of the scenarios. Please continue.______________________

4. How much do you think alcohol abuse is a problem for college age (18-24) individuals in our society?

No Problem  At All  Possible  Problem  Serious  Problem  Very Severe  Problem

5. How much do you think alcohol abuse is a problem for older (65+) individuals in our society?

No Problem  At All  Possible  Problem  Serious  Problem  Very Severe  Problem
6. How much do you think illicit drug abuse is a problem for college age (18-24) individuals in our society?
   No Problem At All    Possible Problem    Problem    Serious Problem    Very Severe Problem

7. How much do you think illicit drug abuse is a problem for older (65+) individuals in our society?
   No Problem At All    Possible Problem    Problem    Serious Problem    Very Severe Problem

8. What is your current age? ______

9. What is your education level?
   Some college    College degree    Beyond one college degree

10. What is your gender?
    Male    Female    Other________

11. What is your race/ethnicity? (Please circle all that apply.)
    White/Caucasian    Black/African American    Asian    Hispanic    Other_______

12. If you have any comments, please write them in the space below or on the back of this page.

*Thank you for all of your time. Your participation is greatly appreciated!
Substance Use/Abuse Survey

*Please circle your answer choice for the questions below.

--- “Drinks” in each question are intended to have equal alcohol content. Assume that the individuals in each of the questions are affected in the same way by the amount of alcohol ingested.

1. Kevin is 21 and a college student. He usually goes out with friends 2 or 3 nights a week and typically has around 4 or 5 drinks every time he’s out. He sometimes misses class because of his drinking. To what degree does Kevin have a substance abuse problem?

<table>
<thead>
<tr>
<th>No Problem At All</th>
<th>Possible Problem</th>
<th>Problem</th>
<th>Serious Problem</th>
<th>Very Severe Problem</th>
</tr>
</thead>
</table>

1a. What if the substance involved is not alcohol but marijuana (i.e. smoking one joint 3 times a week)?

<table>
<thead>
<tr>
<th>No Problem At All</th>
<th>Possible Problem</th>
<th>Problem</th>
<th>Serious Problem</th>
<th>Very Severe Problem</th>
</tr>
</thead>
</table>

1b. What if Kevin drinks alone every time instead of with his friends?

<table>
<thead>
<tr>
<th>No Problem At All</th>
<th>Possible Problem</th>
<th>Problem</th>
<th>Serious Problem</th>
<th>Very Severe Problem</th>
</tr>
</thead>
</table>

1c. What if Kevin is able to go to class every day regardless of his drinking behavior?

<table>
<thead>
<tr>
<th>No Problem At All</th>
<th>Possible Problem</th>
<th>Problem</th>
<th>Serious Problem</th>
<th>Very Severe Problem</th>
</tr>
</thead>
</table>

2. Dave is 45 and a business executive. He and his co-workers or spouse usually go to a local restaurant for drinks after work 2 or 3 nights a week. Dave typically has around 4 or 5 drinks on each of these occasions. He sometimes calls in sick to work because of his drinking. To what degree does Dave have a substance abuse problem?

<table>
<thead>
<tr>
<th>No Problem At All</th>
<th>Possible Problem</th>
<th>Problem</th>
<th>Serious Problem</th>
<th>Very Severe Problem</th>
</tr>
</thead>
</table>

2a. What if the substance involved is not alcohol but marijuana (i.e. smoking one joint 3 times a week)?

<table>
<thead>
<tr>
<th>No Problem At All</th>
<th>Possible Problem</th>
<th>Problem</th>
<th>Serious Problem</th>
<th>Very Severe Problem</th>
</tr>
</thead>
</table>
2b. What if Dave drinks alone every time instead of with his co-workers or spouse?

<table>
<thead>
<tr>
<th>No Problem</th>
<th>Possible Problem</th>
<th>Problem</th>
<th>Serious Problem</th>
<th>Very Severe Problem</th>
</tr>
</thead>
<tbody>
<tr>
<td>At All</td>
<td></td>
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</tbody>
</table>

2c. What if Dave is able to go to work every day regardless of his drinking behavior?

<table>
<thead>
<tr>
<th>No Problem</th>
<th>Possible Problem</th>
<th>Problem</th>
<th>Serious Problem</th>
<th>Very Severe Problem</th>
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<tbody>
<tr>
<td>At All</td>
<td></td>
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</tr>
</tbody>
</table>

3. Chester is 73 and a retired journalist. He and his friends from the local senior center usually go out for dinner 2 or 3 times a week where Chester typically has 4 to 5 drinks each time. Chester sometimes misses volunteering at the library because of his drinking. To what degree does Chester have a substance abuse problem?

<table>
<thead>
<tr>
<th>No Problem</th>
<th>Possible Problem</th>
<th>Problem</th>
<th>Serious Problem</th>
<th>Very Severe Problem</th>
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<tbody>
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</tbody>
</table>

3a. What if the substance involved is not alcohol but marijuana (i.e. smoking one joint 3 times a week)?

<table>
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<tr>
<th>No Problem</th>
<th>Possible Problem</th>
<th>Problem</th>
<th>Serious Problem</th>
<th>Very Severe Problem</th>
</tr>
</thead>
<tbody>
<tr>
<td>At All</td>
<td></td>
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</tbody>
</table>

3b. What if Chester drinks alone every time instead of with his friends?

<table>
<thead>
<tr>
<th>No Problem</th>
<th>Possible Problem</th>
<th>Problem</th>
<th>Serious Problem</th>
<th>Very Severe Problem</th>
</tr>
</thead>
<tbody>
<tr>
<td>At All</td>
<td></td>
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</tbody>
</table>

3c. What if Chester is able volunteer at the library every day regardless of his drinking behavior?

<table>
<thead>
<tr>
<th>No Problem</th>
<th>Possible Problem</th>
<th>Problem</th>
<th>Serious Problem</th>
<th>Very Severe Problem</th>
</tr>
</thead>
<tbody>
<tr>
<td>At All</td>
<td></td>
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</table>

______________This is the end of the scenarios. Please continue.______________________

4. How much do you think alcohol abuse is a problem for college age (18-24) individuals in our society?

<table>
<thead>
<tr>
<th>No Problem</th>
<th>Possible Problem</th>
<th>Problem</th>
<th>Serious Problem</th>
<th>Very Severe Problem</th>
</tr>
</thead>
<tbody>
<tr>
<td>At All</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

5. How much do you think alcohol abuse is a problem for older (65+) individuals in our society?

<table>
<thead>
<tr>
<th>No Problem</th>
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</tr>
</thead>
<tbody>
<tr>
<td>At All</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
6. How much do you think illicit drug abuse is a problem for college age (18-24) individuals in our society?

- No Problem At All
- Possible Problem
- Problem
- Serious Problem
- Very Severe Problem

7. How much do you think illicit drug abuse is a problem for older (65+) individuals in our society?

- No Problem At All
- Possible Problem
- Problem
- Serious Problem
- Very Severe Problem

8. What is your current age? ______

9. What is your education level?

- Some college
- College degree
- Beyond one college degree

10. What is your gender?

- Male
- Female
- Other_________

11. What is your race/ethnicity? (Please circle all that apply.)

- White/Caucasian
- Black/African American
- Asian
- Hispanic
- Other_______

12. If you have any comments, please write them in the space below or on the back of this page.

*Thank you for all of your time. Your participation is greatly appreciated!
**Substance Use/Abuse Survey**

*Please circle your answer choice for the questions below.

--- “Drinks” in each question are intended to have equal alcohol content. Assume that the individuals in each of the questions are affected in the same way by the amount of alcohol ingested.

1. Annie is 21 and a college student. She usually goes out with friends 2 or 3 nights a week and typically has around 4 or 5 drinks every time she’s out. She sometimes misses class because of her drinking. To what degree does Annie have a substance abuse problem?

<table>
<thead>
<tr>
<th>No Problem At All</th>
<th>Possible Problem</th>
<th>Problem</th>
<th>Serious Problem</th>
<th>Very Severe Problem</th>
</tr>
</thead>
</table>

1a. What if the substance involved is not alcohol but marijuana (i.e. smoking one joint 3 times a week)?

<table>
<thead>
<tr>
<th>No Problem At All</th>
<th>Possible Problem</th>
<th>Problem</th>
<th>Serious Problem</th>
<th>Very Severe Problem</th>
</tr>
</thead>
</table>

1b. What if Annie drinks alone every time instead of with her friends?

<table>
<thead>
<tr>
<th>No Problem At All</th>
<th>Possible Problem</th>
<th>Problem</th>
<th>Serious Problem</th>
<th>Very Severe Problem</th>
</tr>
</thead>
</table>

1c. What if Annie is able to go to class every day regardless of her drinking behavior?

<table>
<thead>
<tr>
<th>No Problem At All</th>
<th>Possible Problem</th>
<th>Problem</th>
<th>Serious Problem</th>
<th>Very Severe Problem</th>
</tr>
</thead>
</table>

2. Jennifer is 45 and a business executive. She and her co-workers or spouse usually go to a local restaurant for drinks after work 2 or 3 nights a week. Jennifer typically has around 4 or 5 drinks on each of these occasions. She sometimes calls in sick to work because of her drinking. To what degree does Jennifer have a substance abuse problem?

<table>
<thead>
<tr>
<th>No Problem At All</th>
<th>Possible Problem</th>
<th>Problem</th>
<th>Serious Problem</th>
<th>Very Severe Problem</th>
</tr>
</thead>
</table>

2a. What if the substance involved is not alcohol but marijuana (i.e. smoking one joint 3 times a week)?

<table>
<thead>
<tr>
<th>No Problem At All</th>
<th>Possible Problem</th>
<th>Problem</th>
<th>Serious Problem</th>
<th>Very Severe Problem</th>
</tr>
</thead>
</table>
2b. What if Jennifer drinks alone every time instead of with her co-workers or spouse?

No Problem  Possible  Problem  Serious  Very Severe
At All      Problem       Problem     Problem

2c. What if Jennifer is able to go to work every day regardless of her drinking behavior?

No Problem  Possible  Problem  Serious  Very Severe
At All      Problem       Problem     Problem

3. Ida is 73 and a retired journalist. She and her friends from the bridge club at the local senior center usually go out for dinner 2 or 3 times a week where Ida typically has 4 to 5 drinks each time. Ida sometimes misses volunteering at the library because of her drinking. To what degree does Ida have a substance abuse problem?

No Problem  At All  Possible  Problem  Serious  Problem  Very Severe

3a. What if the substance involved is not alcohol but marijuana (i.e. smoking one joint 3 times a week)?

No Problem  At All  Possible  Problem  Serious  Problem

3b. What if Ida drinks alone every time instead of with her friends?

No Problem  At All  Possible  Problem  Serious  Problem

3c. What if Ida is able volunteer at the library every day regardless of her drinking behavior?

No Problem  At All  Possible  Problem  Serious  Problem

________________This is the end of the scenarios. Please continue.________________

4. How much do you think alcohol abuse is a problem for college age (18-24) individuals in our society?

No Problem  At All  Possible  Problem  Serious  Problem

5. How much do you think alcohol abuse is a problem for older (65+) individuals in our society?

No Problem  At All  Possible  Problem  Serious  Problem
6. How much do you think illicit drug abuse is a problem for college age (18-24) individuals in our society?

   No Problem At All   Possible Problem   Problem   Serious Problem   Very Severe Problem

7. How much do you think illicit drug abuse is a problem for older (65+) individuals in our society?

   No Problem At All   Possible Problem   Problem   Serious Problem   Very Severe Problem

8. What is your current age? ______

9. What is your education level?

   Less than 8th grade   8-11 years   12 years   Some college

   College degree   Beyond one college degree

10. What is your gender?

    Male   Female   Other____________

11. What is your race/ethnicity? (Please circle all that apply.)

    White/Caucasian   Black/African American   Asian   Hispanic   Other_______

12. Are you working in paid labor, retired, a homemaker, temporarily laid off, disabled and unable to work, unemployed and looking for work, or otherwise occupied during the weekdays? (Please circle all that apply.)

    Working in paid labor   Retired   Homemaker   Student

    Temporarily laid off OR on sick leave OR other leave   Disabled

    Unemployed AND looking for work   Other____________

13. If you have any comments, please write them on the back of this page.

*Thank you for all of your time. Your participation is greatly appreciated!
**Baby Boomer Respondent, Male Target Survey Form**

**Substance Use/Abuse Survey**

*Please circle your answer choice for the questions below.

--- “Drinks” in each question are intended to have equal alcohol content. Assume that the individuals in each of the questions are affected in the same way by the amount of alcohol ingested.

1. Kevin is 21 and a college student. He usually goes out with friends 2 or 3 nights a week and typically has around 4 or 5 drinks every time he’s out. He sometimes misses class because of his drinking. To what degree does Kevin have a substance abuse problem?

| No Problem At All | Possible Problem | Problem | Serious Problem | Very Severe Problem |

1a. What if the substance involved is not alcohol but marijuana (i.e. smoking one joint 3 times a week)?

| No Problem At All | Possible Problem | Problem | Serious Problem | Very Severe Problem |

1b. What if Kevin drinks alone every time instead of with his friends?

| No Problem At All | Possible Problem | Problem | Serious Problem | Very Severe Problem |

1c. What if Kevin is able to go to class every day regardless of his drinking behavior?

| No Problem At All | Possible Problem | Problem | Serious Problem | Very Severe Problem |

2. Dave is 45 and a business executive. He and his co-workers or spouse usually go to a local restaurant for drinks after work 2 or 3 nights a week. Dave typically has around 4 or 5 drinks on each of these occasions. He sometimes calls in sick to work because of his drinking. To what degree does Dave have a substance abuse problem?

| No Problem At All | Possible Problem | Problem | Serious Problem | Very Severe Problem |

2a. What if the substance involved is not alcohol but marijuana (i.e. smoking one joint 3 times a week)?

| No Problem At All | Possible Problem | Problem | Serious Problem | Very Severe Problem |
2b. What if Dave drinks alone every time instead of with his co-workers or spouse?

<table>
<thead>
<tr>
<th>No Problem At All</th>
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2c. What if Dave is able to go to work every day regardless of his drinking behavior?

<table>
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3. Chester is 73 and a retired journalist. He and his friends from the local senior center usually go out for dinner 2 or 3 times a week where Chester typically has 4 to 5 drinks each time. Chester sometimes misses volunteering at the library because of his drinking. To what degree does Chester have a substance abuse problem?

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3b. What if Chester drinks alone every time instead of with his friends?

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3c. What if Chester is able volunteer at the library every day regardless of his drinking behavior?

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5. How much do you think alcohol abuse is a problem for older (65+) individuals in our society?

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6. How much do you think illicit drug abuse is a problem for college age (18-24) individuals in our society?

No Problem At All   Possible Problem   Problem   Serious Problem   Very Severe Problem

7. How much do you think illicit drug abuse is a problem for older (65+) individuals in our society?

No Problem At All   Possible Problem   Problem   Serious Problem   Very Severe Problem

8. What is your current age? ______

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Less than 8th grade   8-11 years   12 years   Some college
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12. Are you working in paid labor, retired, a homemaker, temporarily laid off, disabled and unable to work, unemployed and looking for work, or otherwise occupied during the weekdays? (Please circle all that apply.)

Working in paid labor   Retired   Homemaker   Student
Temporarily laid off OR on sick leave OR other leave   Disabled
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