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An Examination of Harm Reduction Behaviors and Perceived Parental Attitudes Toward Substance Use

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An Examination of Harm Reduction Behaviors and Perceived Parental Attitudes Toward Substance Use

Abstract
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AN EXAMINATION OF HARM REDUCTION BEHAVIORS AND PERCEIVED
PARENTAL ATTITUDES TOWARD SUBSTANCE USE

A DISSERTATION
SUBMITTED TO THE FACULTY
OF
SCHOOL OF PROFESSIONAL PSYCHOLOGY
PACIFIC UNIVERSITY
HILLSBORO, OREGON

BY
TALYA MCNAASSAR, M.S.

IN PARTIAL FULFILLMENT OF THE
REQUIREMENTS FOR THE DEGREE
OF
DOCTOR OF PSYCHOLOGY

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ABSTRACT

In this study I examined differences between mean number of harm reduction behaviors when comparing children raised in harm reduction, abstinence only, permissive, and mixed/unclear homes. There were 219 individuals aged 18 – 30 who completed a survey regarding their substance use in high school. Children raised in harm reduction homes endorsed more harm reduction behaviors than children raised in the other homes types, in regards to their substance use in high school. These findings suggest that children whose parents use a harm reduction approach might employ more safety measures if they do decide to use substances during high school.
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INTRODUCTION

Since the early 1980s, drug policy, education, and prevention have been geared toward eliminating all drug and alcohol use among youth. Today this attitude is so pervasive that no drug education program in the United States can obtain federal funding for their program without an abstinence only message (Department of Education, 2006).

Despite the prevalence of such programs, there is evidence that they are ineffective in their goal of preventing drug use among youth. Skager (2004) found that support for many of the federal government’s “model prevention programs” was based on flawed research. In their review of the government lists of successful school-based drug-prevention programs, Gandhi, Murphy-Graham, Petrosino, Chrismer, and Weiss (2007), found that the criteria used to deem programs successful was faulty. For example, they found that researchers deemed results from a program statistically significant although the actual effect size was small and therefore had little practical significance. Additional problems included that programs these researchers evaluated, with the exception of the Life Skills Training Program, had few “empirical evaluations” (p. 60) to support their effectiveness; for many of the programs, there were no independent evaluators of the programs’ effectiveness; and that some education programs were successful only under certain conditions for certain types of students. The authors wrote, “when we look at all the evaluations cited across the lists, we are disturbed by the frailty of evidence for some of the ‘proven’ programs” (p. 65). Buchanan and Wallack (1998) found that the
Partnership for a Drug-Free America, a popular non-profit drug-prevention organization, cited data to support their program that were based on questionable research, and drew conclusions from the data that were inaccurate. Several authors (for example, West & O’Neal, 2004; Wysong, Aniskiewicz, & Wright, 1994) have found that there are no positive effects from the D.A.R.E. program, which is currently used in 75% of school districts (D.A.R.E., 2007). D.A.R.E. has recently revamped their program in response to criticisms about effectiveness, but the new program, referred to as the “New D.A.R.E.,” is very similar to the old program (Moilanen, 2004).

One facet of drug education is educating parents on how to talk to their children about drugs and alcohol. If many of the standard education programs are ineffective, it is important to similarly review the effectiveness of how parents talk to their children about drug and alcohol use. There are two distinct frameworks being promoted to educate parents on talking to their children about drugs and alcohol. The first is similar to much of the current school-based drug education programs, stemming from the idea that drug use among youth can be prevented. This approach is referred to as the “abstinence only” approach. Proponents of the second approach would like to prevent their children from taking drugs and alcohol, but recognize that experimentation is common in adolescence and therefore believe in teaching ways to reduce harm from using drugs and alcohol. This approach is called “harm reduction.” G. Alan Marlatt, a leader in the field of adult harm reduction explained harm reduction well:

unlike proponents of the moral model, who view drug use as bad or illegal and who advocate supply reduction (via prohibition and punishment), harm reduction shifts the focus away from drug use itself to the consequences or effects of
addictive behavior.... Harm reduction accepts the practical fact that many people use drugs and engage in other high-risk behaviors and that idealistic visions of a drug-free society are unlikely to become reality” (p. 785, 786, 1996)

Because the issue of adolescent drug use is of such concern, it is important to understand which of these parental attitudes is most effective in protecting adolescents from the dangers of drug and alcohol use. It is also important to understand how these approaches work over time, since a period of heavy drug or alcohol use in adolescence might not predict the eventual well-being of the adolescent throughout college and beyond. In order to understand which approach works best for children, I reviewed research on parenting styles, approaches, and attitudes regarding their adolescents’ drug and alcohol behavior. In the review of the literature that follows, I make a distinction between literature that helps make a case for an abstinence only approach, and literature that adds legitimacy to a harm reduction approach. In order to narrow a large body of literature, I did not include studies that focused on a small subsection of youth, such as a particular minority or income bracket, or youth or parents with a particular mental illness. Instead studies targeted a general sample of the population.

Support for an Abstinence Only Approach

There are several popular organizations that serve as a resource for parents trying to determine what approach to take with their children regarding substance use. Many of the organizations’ websites have pages for parents with tips on talking to their children about drugs and alcohol. There are few differences among the most popular of these sites in the tips given to parents. This quote from the D.A.R.E. website for parents is strikingly similar to the tips given to parents on the websites for The Partnership for a Drug-Free
America (2007) and The Anti-Drug (National Youth Anti-Drug Media Campaign, 2007): “Tell your children that you love them and you want them to be happy and healthy. Say that you do not find alcohol and other illegal drug use acceptable.... Try to understand each other's point of view. Be an active listener and let your child talk about fears and concerns while not interrupting or preaching” (D.A.R.E., 2007). Parents are advised that, above all, they should not tolerate any substance use, and should steer children away from substance-using peers.

The websites reviewed above are popular and accessible, yet it is important to consider the empirical support for an abstinence only approach. Several researchers support the notion that parents’ disapproval of their adolescent’s alcohol and drug use led to less use. Nash, McQueen, and Bray (2005) surveyed over 3,000 high school students from 11 schools each semester beginning in the spring of 9th grade until spring of 12th grade to measure the adolescents’ perceptions of their parent’s expectations regarding alcohol use, parental monitoring of activities and friends, communication with parents, peer influence, stress, self-efficacy, quantity of alcohol use, and problems associated with alcohol use. They found that adolescents who perceived that their parents disapproved of alcohol use drank less and had fewer problems associated with use. They also found that students with a “positive family environment,” a measure which included feeling accepted by parents, being monitored by parents, and having good communication with parents, were better able to refuse alcohol and felt less influence to drink by their peers, regardless of the parent’s level of disapproval of alcohol use.

He, Kramer, Houser, Chomitz, and Hacker (2004) similarly concluded that adolescents who perceived that their parents would disapprove of their substance use
were 8% more likely to “make healthy choices” (p. 28), which included not having “5 or more drinks in a row during the last 30 days” (p. 28) and not using any illegal drugs except marijuana in the past 30 days. The authors found that parents who strongly disapproved of their children’s substance use “may be a powerful social support for their children’s healthy behaviors and well-being” (p. 32).

McDermott (1984) gives further support to this theory. She also found adolescent’s perceptions of their parents’ level of permissiveness or disapproval regarding substance use was related to their own use. A problem with this study is that McDermott did not differentiate between levels of adolescent use, and many of her conclusions are therefore broad. For example, based on data that fewer adolescents with disapproving parents use drugs than adolescents with permissive parents, she wrote that “when adolescents view their parents as permissive about drug use, they are more likely to use drugs” (p. 95). However, McDermott did not define the level of use she is referring to, which makes it difficult to make conclusions about permissive parenting and it’s implications for adolescent use.

Cottrell et al (2003) studied both parents’ and adolescents’ perceptions of parental monitoring to assess, among other things, whose perception better predicts “adolescent risk involvement” (p. 181). The authors measured these perceptions at only one point in time. A major limitation of this study was that the participants were from rural, largely poor West Virginia communities even though the authors intended for their findings to apply to the population at large. Their findings, however, were consistent with the three studies reviewed above: adolescents’ perceptions of their parent’s monitoring predicted
several risk taking behaviors including marijuana and alcohol use. Parents were not as
good at predicting their children’s behavior, except in regard to smoking cigarettes.

In a study of Dutch adolescents and parental attitudes around drinking, van der
Vorst, Engels, Meeus, and Dekovic (2006) found that adolescents whose parents had
stricter rules about drinking drank less. However, they also found that these rules were
not necessarily followed by adolescents a year later, a conclusion which the authors
speculated might be because adolescents do not internalize rules over a long period of
time if these rules are not reinforced. This study was useful to understand the relationship
between parental attitudes and adolescent alcohol use because it studied changes in
adolescents’ drinking over time in light of these attitudes. It must be cautioned that we do
not know whether this study is generalizable to American youth.

Support for Either an Abstinence Only or a Harm Reduction Approach

The conclusions of two studies were interesting because one could use them to
support either the abstinence only or harm reduction approaches. In the first one, Dorius,
Bahr, Hoffmann, and Harmon (2004) sought to understand whether “closeness to mother,
closeness to father, parental support, and parental monitoring buffer the relationship
between peer drug use and adolescent marijuana use” (p. 163). The researchers cited
evidence that adolescents whose friends used marijuana were more likely to “acquire
favorable attitudes toward marijuana use” (p. 164), and they conducted their research to
see whether familial factors could moderate this relationship. Several findings emerged
from the research. They found that use by peers use did have a significant positive effect
on adolescent marijuana use. They also found that the effect use by peers on adolescent
use was moderated when adolescents perceived that they would be caught by their
parents if they used marijuana. However, they did not find evidence to support that
closeness to mother, closeness to father, or parents’ knowledge of their children’s
activities would work to lessen marijuana use. Furthermore, only closeness to father
moderated the relationship between use by peers and adolescent use, while closeness to
mother and perceived parental support did not. Overall, only the adolescents’ perception
that they would be caught had any effect on their marijuana use. One of the problems
with this study was that only 9% of the adolescents in the study had used marijuana in the
last month, a limitation acknowledged by the researchers. Nevertheless this study is
useful in raising more questions about the effects of parental attitudes on adolescent’s
relationship with drugs and alcohol.

The second study is by Diana Baumrind (1991), who first conceptualized and
introduced the terms rejecting-neglecting, permissive, authoritative, and authoritarian to
describe different parenting styles. In this study, Baumrind surveyed children who were
born in the 1960s to middle class families when they were 4, 10, and 15 years old to
determine links between parenting styles and “adolescent competence.” Baumrind
defined adolescent competence as being connected to the family while also displaying
appropriate levels of individuality and independence (p. 61). An interesting aspect of this
article is that Baumrind concluded that substance use can be part of the natural
developmental stage of independence from one’s parents. She wrote, “sexual or drug
experimentation in early adolescence was not expected to be a manifestation of early
maladaptive pattern of childrearing or childhood personality” (p. 75). This perspective
distinguished Baumrind from the typical abstinence only stance.
For the purpose of her study, Baumrind categorized parenting patterns into 7 groups to study family dynamics during adolescence: authoritative, democratic, authoritarian-directive, nonauthoritarian-directive, good-enough, nondirective, and unengaged families. She then divided substance use behaviors into several groups: risk-avoidant nonuser, rational nonuser, recreational user of alcohol, experimental or casual user of cannabis, heavy user of alcohol, drugs, or both, and drug-dependent users of alcohol, drugs, or both (p.77). She found several important aspects of adolescent substance use. First, experimental users of marijuana (less than once per week) were as competent and had as few problem behaviors as nonusers. Second, among all groups of users, it was the dependent users whose parents seemed to have a drastically different parenting style than the parents of other types of users. These parents tended to not exert authority and were not supportive. The children exhibited more problem behaviors and less competence. Third, parents who were nonauthoritarian-directive, in other words, “directive but not autocratic” (p.63) and non-intrusive were as effective in deterring their adolescents from substance use as authoritative parents. Baumrind suggested that this similarity may be due to both parents having “strong mutual attachments that persist through adolescence, and coherent consistent management policies including supervision and discipline” (p.89). It is an interesting study in that Baumrind showed that adolescent competence, rather than abstinence, is more important, since more competent adolescents tend to use less and have fewer problematic behaviors. A limitation of this study is that the population studied was born in the 1960s at a time when there may have been different attitudes about drug use. It is not clear whether a similar study of a population born in the 1990s would yield similar results.
Support for a Harm Reduction Approach

Within the harm reduction literature, there was no directly equivalent research that challenges the abstinence only approach as a whole. In contrast, advocates of a harm reduction approach have primarily focused on critiquing the underlying assumptions and specific components of abstinence only programs. For example, some authors from the harm reduction literature challenge the idea that parents should preach abstinence even though they might have used drugs as a teenager. Other authors challenge the idea that adolescent drug use leads to academic problems. Below I will review several more articles pointing out how specific issues challenge our traditional ways of thinking about adolescent substance use.

Much of the research reviewed for the abstinence only approach focused on adolescents’ relationships with their peers. It is commonly accepted that adolescents’ substance use is heavily influenced by their peers, and that because of this, steering adolescents away from peers who use substances is one way to stop adolescent use. Coggans and McKellar (1994) contested this idea stating that substance-using children associate with substance-using peers because of preference, not pressure. The authors found that studies that found peer pressure to be a factor in substance use interpreted their data to support this theory because “there seems to be an all too widespread unwillingness to accept that people could be motivated to use drugs for reasons other than pathological” (p. 19). For example, in one study scale items did not directly “address the issue of being pressured” (p. 19) but the researchers assumed causality from data showing that substance-using adolescents associated with substance-using peers. The authors concluded that the children “use drugs on a recreational basis because they want to, not
because they lack knowledge, social skills or have a poor self-image” (p. 16). The authors’ review of research into peer pressure and drug use found no evidence to support the theory that children are pressured by their peers into use. Instead, they suggested that children who want to use substances will gravitate toward like-minded peers because children gravitate toward peers who have similar values as their own, where they will be accepted, and with whom their likes and dislikes will be tolerated.

Another commonly held belief in the abstinence only field is that children who use drugs will suffer academically. This belief is widely promoted on the anti-drug websites (D.A.R.E, 2007; National Youth Anti-Drug Media Campaign, 2007; The Partnership for a Drug-Free America, 2007). However, Evans and Skager (1992) conducted a study that offers evidence to the contrary. They collected self-report surveys from 9th and 11th graders from 44 high schools in California (n = 2,288 and 2,653 respectively) and from 9th and 11th graders in one California county (n = 1,043 and 862 respectively). The students answered questions about the substances they used and frequency of use, academic involvement, acting-out behaviors such as cutting class, substance use during school and getting arrested, emotional adjustment, and life satisfaction (Evans & Skager, 1992). The authors found that in the statewide sample, 11th grade students with “high-academic involvement” (p. 358), 11% were high-risk users – users who either used more dangerous drugs such as crack, or who used drugs frequently. 71.8% of high-academically involved 11th graders in the statewide sample used substances (high-risk users and non-high-risk users). They also found that “the eleventh-grade, high-risk users were not the least satisfied with their lives or the least involved in extra-
The authors used these data to encourage educators not to simply rely on poor academic achievement as a sign of substance use. Because abstinence only authors emphasize that adolescents should refrain altogether from substance use, their researchers have studied what happens when parents discuss substance openly, without an abstinence only agenda. A study done by Gill Highet (2005) in Scotland is useful because the author addressed whether parental attitudes toward their children’s alcohol and marijuana use could reduce harm from use, regardless of whether the child decided to use or not. Highet conducted 30 interviews of 13 to 15-year-old children regarding their parents’ approach toward the children’s alcohol and marijuana use, and the children’s subsequent use. Interestingly, Highet found that parental approaches toward their children’s alcohol use were very different from their approaches about marijuana use. Many parents spoke to their children about alcohol and had a somewhat accepting view of their children’s use. Instead of telling the children not to drink, many parents encouraged the children to drink responsibly and placed restrictions on where and when they could use. Many of the children reported that this approach worked. In contrast, most parents did not talk with their children about marijuana use. Highet felt that this is “an important opportunity lost” (p.122) to teach children about responsible marijuana use.

There are publications that lay out an alternative approach for parents in communicating with their adolescents about drug and alcohol use. The first is called “Safety First: a Reality-Based Approach to Teens, Drugs, and Drug-Education” by Dr. Marsha Rosenbaum (2002). Although there currently are no data on the effectiveness of this approach, it seems promising in that it challenges many of the problematic aspects of
our current drug education. Rosenbaum developed the approach because of what she saw as the failure of traditional drug education programs, and a lack of information for children who do not abstain from substance use. There are five problems with current drug education programs according to Rosenbaum. First, teenagers hear a mixed message about substance use because the mainstream culture promotes drug use (in the form of alcohol, caffeine, prescription drugs, and tobacco), while their school-based programs preach that all substance use is bad (p.8). Second, teenagers see that adults distinguish between substance use and abuse. They see their parents drinking, or even smoking marijuana, without it becoming problematic. This contradicts the message they get in drug education programs which does not distinguish between use and abuse. Third, many drug education programs include exaggerated and false information about drugs. Rosenbaum wrote that adolescents can see through the exaggerations of drug education programs, such as when they learn that a person can become addicted to marijuana if they try it once. As a result, “teenagers will ignore our warnings completely and put themselves in real danger” (p. 11). Fourth, Rosenbaum disputed the popular theory that marijuana is a gateway drug. She wrote that when they realize that this is false information, “students discount both the message and the messenger” (p. 12). Finally, because most drug education programs have an abstinence only message, children who do choose to use substances have no information about how to use them more safely, which ultimately fails these children.

Instead of the traditional approach of drug education programs, Rosenbaum recommended that, “the programs should offer credible information, differentiate between use and abuse, and stress the importance of moderation and context” (p.5).
Although abstinence might be the safest choice for adolescents, most will use substances anyway. Because of this, Rosenbaum laid out a program that teaches these children how to be as safe as possible if they are using drugs or alcohol. Rosenbaum advocated that children should be given honest, science-based education about drugs and alcohol. They should be taught about “how drugs affect the body,” “how drugs affect the mind,” “what’s contained in drugs,” “how drugs have been handled by the government,” and “who uses which drugs, and why” (p. 17). Parents should encourage their children to talk with them about drugs, and should provide credible information about drugs if requested. Children should be taught the legal consequences of drug use. Finally, children should be taught that there is a difference between use and abuse, and how to use drugs in a way that will not lead to abuse. She also believes parents can talk to their children about reducing the risks of using substances, such as not drinking and driving, and not participating in dangerous “drinking contests” (p. 20). With this body of information, Rosenbaum concluded that children will be knowledgeable enough to make their own decisions regarding substance use.

The second approach is by Stanton Peele (2007), a psychologist whose expertise is in addiction. His book Addiction-Proof Your Child offers parents an alternate approach to dealing with children’s substance use. His basis for writing the book had many similarities to Rosenbaum: current drug education does not work, most children will experiment with drugs at some point in their lives, and that there are ways to teach children to use responsibly if they choose to use substances.

Peele began his book by stating that “the problem is addiction, not drugs” (p. 11). He wrote that addiction to anything, not just drugs or alcohol, is a manifestation of
emotional problems and “deep-seated deficiencies” (p. 23). Therefore, teaching children life skills, good values, and maturity are insulators against all kind of addiction. He wrote, “the ‘secret’ to avoiding addiction is to raise children capable of managing themselves and leading their lives independently” (p. 93).

Peele encouraged an authoritative parenting style in regards to parental attitudes about substance use. He believed that children can learn how to drink responsibly at home, even by drinking moderately and safely with their parents. He cited research that children who drank with their families at celebrations are less likely to binge drink outside of the home. Parents should model moderation and healthy drinking habits.

Similarly to Rosenbaum, Peele encouraged parents to communicate openly and honestly with their children about drugs. He advocated that teaching children how to use substances safely is the best approach parents can take with their children. He therefore taught parents how to conduct a detailed “risk-reduction interview with your children” (p. 167). In this interview, parents should glean information about their child’s use, the potential dangers of this use, and how to reduce these risks. For example, parents should ask their children what they know about the risks of what they are doing, and then ask them to “brainstorm ways to prevent these outcomes” (p. 167). He also encouraged parents to “help your children clarify their own values, goals, and self-image so as to strengthen their resolution not to take unacceptable risks” (p. 167). This approach heavily emphasizes children’s own independence and ability to come up with safe solutions, but also encourages parental involvement and teaching.

Contrary to conventional thinking about adolescent substance use, Peele cited a great deal of evidence that most children will not have long-term problems with drugs.
He wrote that “death due solely to drinking or ingesting drugs is extremely rare” (p. 168). Most drug-induced death is due to mixing substances, which can be avoided if children are given specific information about the dangers of mixing certain substances in their drug education. Furthermore, children should be taught other safety measures around specific drugs. For example, “don’t take multiple drugs that depress the nervous system,” and “go immediately to an emergency room (or take your friend or ask to be taken to one) if you become sick or have a negative reaction to a drug” (p. 170).

Although Rosenbaum’s and Peele’s methods have not yet been thoroughly studied, there is evidence that supports exploring such programs. First, harm reduction is now widely used with adults in Europe and in the United States. Using harm reduction with younger people may be similarly successful. As Bonomo and Bowes (2001) pointed out, “harm reduction as it applies to youth, however, has only recently gained momentum as research into prevention of substance use has focused on adolescence. The notion that strategies for harm reduction in young people need to be different to the strategies in drug-using adults is still not widely understood” (p. 6).

Second, the current traditional style of drug education is not making a significant difference in adolescent use. According to the National Youth Risk Behavior Survey, there have been no significant changes in lifetime (used one or more times during lifetime) or current (used one or more times in the past 30 days) alcohol use, heavy drinking (five or more drinks in a row on one or more days in the past 30 days), lifetime or current marijuana use, lifetime or current cocaine use, or lifetime inhalant use among 9th to 12th graders from 2003 to 2005 (Centers for Disease Control and Prevention, 2007). Additionally, in the 2008 Monitoring the Future Survey, one of the largest national
surveys of youth substance use, the researchers reported that 47% of high school graduates had tried an illicit drug, including marijuana (Johnston, O’Malley, Bachman & Schulenberg, 2009). Thus, rates of substance use among youth of use are still very high, calling into question the efficacy of our current drug education approach.

Even if we make changes to our current traditional approaches to drug education, it is likely that many youth will still choose to use substances. Given this reality, there has been surprisingly little research on reducing harm for those adolescents who do decide to use. Peele and Rosenbaum address this point and propose ways to reduce harm. Yet no formal studies have tested this approach.

Rationale for this Study

Because the field of harm reduction is in its infancy, there is a lack of research to back its effectiveness. Previous studies have concluded that school-based abstinence only education is ineffective in their goal (for example West & O’Neal, 2004; Wysong, Aniskiewicz, & Wright, 1994). Furthermore, the effectiveness of this has support with substance abusing adults (Marlatt, 1996). Some schools are starting to use this approach with students, and offer anecdotal evidence that it is working in reducing harm when students use substances (Richman, 2005). Although there is growing interest and use of the approach with substance-using adolescents, there is a gap in the research to support its effectiveness compared with other approaches. No formal studies have attempted to research the effectiveness in reducing harm when parents use this approach with their adolescent. My research addressed the relative effectiveness of different parental approaches on the use of harm reduction behavior. I tested the hypothesis that children growing up with parents who had a harm reduction approach were more likely to follow
safety measures if they did decide to use drugs or alcohol during high school compared with children who used drugs but grew up in an abstinence only, permissive, or unclear household.
METHOD

Participants

This study used data from surveys completed by undergraduate and graduate college students at Pacific University in Forest Grove, Oregon. Pacific University is a small liberal arts college in the Pacific Northwest with approximately 3,100 students. Only people between the ages of 18 and 30 were used for this study. Previous studies in this area have focused on students who were still in high school. The lower cut-off age was selected for this study because it was reasoned that people who had already completed high school could reflect upon their experience with more perspective than if they were still in high school. It was also important that participants be able to reflect upon the entirety of their high school years, which would not be possible if they were still in high school. The upper cut-off age was selected for this study because it was reasoned that people older than 30 might be in a generation that had different values and behaviors around drug use. Although university students are not representative of the general population as a whole, a random sample was deemed unnecessary for this study since it is likely that there will still be variability among the students (for examples suggesting there may be many different parental approaches to children’s substance use, see Garofoli, 2007; Newman, 2004; Peele, 2007).
Measures

Survey

The author developed a survey (see Appendix A) with three sections for use in this study. The questions were formed by studying the talking points for parents discussed in the harm reduction and abstinence only literature reviewed above. The study conceptualized parental types in 4 categories: *abstinence only, harm reduction, permissive, mixed/unclear*. Abstinence only parents did not accept any substance use by their child. Harm reduction parents were more concerned with implementing safety measures around substance use than with advocating that no substance use was permitted. Permissive parents were those who did not care if their child used substances, and therefore did not lay out any rules surrounding use. Mixed/unclear referred to parents whose messages to their child about substance use either consisted of mixed messages or were unclear. An example of these types of parents were those who told their high school-aged child they could not drink alcohol, but who then bought alcohol for their child’s use.

In the first section, participants were asked to endorse one of five statements that best represented their perception of their parent’s or caregiver’s general overall attitude toward the participants’ drug and alcohol use while in high school. The statements corresponded to an abstinence only approach, harm reduction approach, permissive approach, and mixed/unclear approach.

In the second section, participants were asked to what degree a list of 15 statements characterized their parent’s/caregiver’s attitudes, rules, and consequences
regarding the participant’s substance use during high school. Each statement had three levels of endorsement: very much, somewhat, not at all.

In the third section, participants were asked to look at a list of statements about their behaviors regarding substance use during high school. The first item asked to what degree the participant used recreational drugs or alcohol: weekly, monthly, more than 3 time during high school, but not regularly, and 0 – 3 times total. For each of the other 13 items, participants were asked to circle the degree to which each statement was true. Each statement had five levels of endorsement: every time, most of the time, rarely, never, or not applicable. The items covered different safety measures that a person might choose if they decided to use substances, such as not getting into a vehicle with a driver who was under the influence of drugs or alcohol, or not using substances if there were family or school obligations to attend to. Each level of endorsement was given a number between 0 and 4 which corresponded to the degree to which an item was a harm reduction behavior. When these numbers were added, each person was given a total harm reduction score with higher numbers representing more harm reduction behaviors employed. These items were adapted from the harm reduction literature on different safety measures that children can learn if they decide to use substances (Peele, 2007; Rosenbaum, 2002).

Procedure

Informed Consent

All participants in the survey had the option of obtaining the informed consent to participate and statement of confidentiality by emailing the researcher. The statement of confidentiality explained that no identifying information would be used on the survey. This was important since participants were answering questions about possible illegal
activities and underage drinking. By electronically signing the informed consent online, they agreed to let the researcher use the answers from their survey for the purposes of the dissertation only.

Statistical Analysis

A power analysis for the ANOVA was run to determine how many participants were needed to compete the study. The power analysis revealed that the ANOVA test required a sample size of 180 participants for a medium effect size. In order to obtain a large enough sample, the researcher hoped to recruit a minimum of 300 students for the study. The researcher introduced the survey to classes at a local university described above via an email solicitation. Students were given a website address for an online survey provider in order to complete the survey.

Survey

The online survey began with a short explanation and instructions. Participants were instructed that if parents or caregivers were divorced or living in separate households during high school, to answer the questions regarding the household that had the most influence on their behavior. They were also reminded that the entire survey is in regards to their parents and themselves during high school only. They were told that they could discontinue filling out the survey at any time if they no longer wished to participate. Before reading instructions for the survey, participants read the informed consent. At the end of the informed consent, participants read that by clicking the next button at the bottom of the screen, the participant agreed that he or she is between the ages of 18 and 30 years old and agrees to participate in the research study. Once read, they were able to begin the survey. At the end of the survey, participants were given a
page to print out that they could use as a receipt showing that they completed the survey (some students needed this receipt to obtain research participation credit for class).

Finally, they were thanked for their participation in the study.

Participants were assigned to 1 of 4 parental types based on their answer to the first survey question. The independent variable is the participant’s perception of parental attitudes toward substance use. The third part of the survey was used to gather information on the types of harm reduction behaviors the subject engaged in and the frequency of behaviors. The dependent variable is the number of endorsed substance use harm reduction behaviors. Specifically, a total score was given to each participant between 13 and 52, with higher numbers reflecting endorsement of more harm reduction behaviors.
RESULTS

Post-hoc Revisions

After collecting the data, it was decided to collapse certain groups into one since this seemed a more appropriate way of discussing substance use. Specifically, those who endorsed a weekly or monthly frequency of substance use were collapsed into one group. More than 3 times, 1 to 3 times total, and 0 times total were collapsed into another group. The differentiation of frequent drug users verse non-frequent users seemed a more appropriate way of distinguishing between groups, and one that made more sense in light of the hypothesis.

Descriptive statistics

Links were sent to 1,494 people. Of these, there were 265 surveys collected (17.7% response rate). Of these, 219 were complete without missing data. The range of ages was 18 to 30 years old, and the mean age of participants was 23.62. Among completed surveys, 129 (58.9%) participants perceived that their parents had an abstinence-only approach towards their substance use, 64 (29.2%) perceived a harm reduction approach, 4 (1.8%) perceived a permissive approach, and 22 (10.0%) perceived a mixed or unclear approach. When participants’ drug use frequency was collapsed into the 2 groups, 56 participants (25.6%) were in the frequent drug users category, and 163 (74.4%) were in the non-frequent drug users category. The dependent variable was the number of endorsed substance use harm reduction behaviors; the independent variable
was the participant’s perception of parental attitudes toward substance use. The data were analyzed in SPSS (version #17) using a one-way analysis of variance (ANOVA) to determine significant differences between group means.

Assumptions

The following discussion of assumptions is focused solely on the frequent drug users category. Because only one participant in this category perceived their home type to be permissive, there were only 3 groups used in the analyses below. The dependent variable was normally distributed across the 3 groups of parental home types with one exception. For participants in abstinence only, harm reduction, and mixed/unclear homes, skewness values were .270, -.328, and -.233 respectively. Kurtosis values for abstinence only, harm reduction, and mixed/unclear homes were -.589, .199, and -1.31 respectively. The kurtosis value for the mixed/unclear group indicated a non-normal, platykurtic distribution. However, the analysis of variance is robust to violations of normality.

An internal consistency reliability test revealed a Cronbach’s Alpha of .459, showing that there was not a lot of similarity among the 13 item questions regarding the participant’s harm reduction behaviors during high school. Bi-variate correlations as well as the means and standard deviations for the 13 items may be found in Table 1.
Table 1

*Means, Standard Deviations, and Correlations Among the Survey Items*

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*Note.* The item numbers in Table 1 correspond to the following survey items, from the third section of the survey:

1. I drove a car while intoxicated.
2. I got into a car if the driver was under the influence of drugs or alcohol.
3. I called my parents/caregivers or a taxi rather than drive myself if I was under the influence of drugs or alcohol.

4. I engaged in games that encouraged excessive use.

5. I called 911 if someone I was with overdosed or had alcohol poisoning.

6. I called 911 because I overdosed or had alcohol poisoning.

7. I used substances by myself.

8. I used substances when I had a family or school obligation.

9. I spoke with my parents because I felt I had a drug or alcohol problem.

10. I sought help from people other than my parents for a drug or alcohol problem.

11. I used drugs or alcohol in unsafe situations.

12. If my parents asked me about my drug or alcohol use, I was honest with them.

13. I chose to use substances at my house or a friend’s house because it was safer than doing them elsewhere.
One-Way Analysis of Variance

Total Harm Reduction Behavior Scores

A one-way analysis of variance (ANOVA) was conducted to determine if there were differences in endorsed harm reduction behaviors between children raised in the 3 (i.e. abstinence only, harm reduction, and mixed/unclear) home types among frequent users. One question on the survey helped determine whether or not the participant was a drug user; if a participant endorsed the answer weekly or monthly, he or she was included in the group of frequent drug users. Participants who answered more than 3 times during high school, but not regularly, 1 – 3 times total, or 0 times total were included in the group of non-frequent-drug-users. As stated earlier, this resulted in 3 groups of frequent drug users, since there were no participants in this group from permissive homes. The dependent variable is the number of endorsed harm reduction behaviors by drug users. This information was gathered by answers to 13 items that related to different harm reduction behaviors. Each question posed a harm reduction behavior and had five possible answers: every time, most of the time, rarely, never, or n/a. Never and n/a were collapsed into one possible answer, so that there were four possible levels of endorsement. Each was assigned a value, some questions reverse-coded, so that a number was given to each participant’s total harm reduction behavior. The higher the number (maximum value was 52 and 13 was the minimum), the more harm reduction behaviors a participant endorsed.

The analysis indicated that there was a significant difference found between the 3 groups of parental home type \[ F(2,48) = 6.44, p < .05, \eta^2 = .212 \]. Post-hoc comparisons using Tukey HSD indicated that the mean harm reduction behavior score for participants
raised in abstinence only homes ($M = 34.65, SD = 3.32$) was significantly different from those raised in harm reduction homes ($M = 37.80, SD = 3.14$). The 95% confidence interval around the mean difference ranged from .54 to 5.77. The post-hoc results also indicated a statistically significant difference between those raised in harm reduction homes and those raised in mixed and unclear homes ($M = 33.89, SD = 4.40$). The 95% confidence interval around the mean difference ranged from .68 to 7.14.

**Individual Harm Reduction Behavior Scores**

In addition to examining if there were significant differences among the three home types with regard to total harm reduction score, each survey item was analyzed separately. Significant differences between group means were found among four survey items: 4, 8, 9, and 13. On question 4 (“I called my parents/caregivers or a taxi rather than drive myself if I was under the influence of drugs or alcohol”), the analysis indicated that there was a significant difference found between the harm reduction and abstinence only home types [$F(2,44) = 4.44, p < .05, \eta^2 = .168$]. Post-hoc comparisons using Tukey HSD indicated that the mean harm reduction score for those raised in a harm reduction home ($M = 2.14, SD = .94$) was significantly higher than for those raised in an abstinence only home ($M = 1.29, SD = .77$) on this question. The 95% confidence interval around the mean difference ranged from .13 to 1.55.

On question 8 (“I used substances by myself”), the analysis indicated that there was a significant difference found between the harm reduction and mixed/unclear home types [$F(2,50) = 4.39, p < .05, \eta^2 = .149$]. Post-hoc comparisons using Tukey HSD indicated that the mean harm reduction score for those raised in a harm reduction home ($M = 3.65, SD = .56$) was significantly higher than for those raised in a mixed/unclear
home ($M = 3.0, SD = .71$) on this question. The 95% confidence interval around the mean difference ranged from .04 to 1.26.

On question 9 (“I used substances when I had a family or school obligation”), the analysis indicated that there was a significant difference found between the harm reduction and abstinence only home types and between the harm reduction and mixed/unclear home types [$F(2,52) = 4.94, p < .05, \eta^2 = .16$]. Post-hoc comparisons using Tukey HSD indicated that group means for those raised in a harm reduction home ($M = 3.62, SD = .50$) were significantly higher than for those raised in an abstinence only home ($M = 3.10, SD = .74$) on this question. The 95% confidence interval around the mean difference ranged from .04 to .98. In addition, post-hoc comparisons using Tukey HSD indicated that group means for those raised in a harm reduction home were significantly higher than for those raised in a mixed/unclear home ($M = 3.00, SD = .82$). The 95% confidence interval around the mean difference ranged from .03 to 1.20.

On question 13 (“If my parents asked me about my drug or alcohol use, I was honest with them”), the analysis indicated that there was a significant difference found between the 3 groups [$F(2,48) = 9.60, p < .05, \eta^2 = .283$]. Post-hoc comparisons using Tukey HSD indicated that there was a significant difference between those raised in a harm reduction home ($M = 2.72, SD = .614$) and those raised in an abstinence only home ($M = 1.72, SD = .82$) on this question. The 95% confidence interval around the mean difference ranged from .44 to 1.55.
DISCUSSION

The purpose of this study was to explore whether young adults raised in harm reduction homes report engaging in more substance use harm reduction behaviors during high school than young adults raised in abstinence only, permissive, or unclear homes. I hypothesized that children growing up with parents who had a harm reduction approach were more likely to follow safety measures than children growing up in “abstinence only,” “permissive,” or “mixed/unclear” homes, if they did decide to use drugs or alcohol during high school. Although this hypothesis had not been studied in this way before, there is a great deal of literature suggesting that there are significant differences between the four home types. As discussed in detail in the literature review section of this paper, the predominant approach toward adolescent’s drug use is informed by an abstinence-only philosophy, which has been demonstrated by past research to be ineffective (for example, West & O’Neal, 2004; Wysong, Aniskiewicz, & Wright, 1994; Gandhi, Murphy-Graham, Petrosino, Chrismer, & Weiss 2007). The present research was not intended to condone adolescent drug use, but rather to address safety concerns that arise from this use. Although the 2008 Monitoring the Future Survey (Johnston, O’Malley, Bachman, & Schulenberg, 2009) showed fluctuations in different types of drug use, it seems clear that taken as a whole, adolescent drug use will likely continue to be a major concern. With that in mind, it is important to understand what approaches work in keeping children who use drugs as safe as possible. The hope of this study was that it
would shed some light on the effectiveness of parental attitudes toward drug use, and that this information might help us improve how we instruct parents in this regard in the future. In other words, since the abstinence only message has not been shown to be effective, what approach should be used in the future, and what are the specific components of such an approach?

The results from this study supported the research hypothesis. Specifically, participants raised in harm reduction homes had significantly higher harm reduction behaviors than participants raised in abstinence only and mixed/unclear homes. While these differences were found to be significant, both the response rate and the sample size were small, calling into question the degree to which these results are generalizable. Still, these results are consistent with the conclusion that using a harm reduction approach does not lead to an increase in unsafe behaviors, and might be a useful approach in reducing harm. Future research in this area should focus on obtaining a larger sample size so that results would have greater generalizability.

Much of the previous research focusing on children’s perceptions of parental attitudes toward their substance use has been used to promote an abstinence only approach. Nash, McQueen, and Bray (2005), He, Kramer, Houser, Chomitz, and Hacker (2004), and Cottrell et al. (2003) all conducted studies that concluded, among other things, that adolescents who perceived that their parents were disapproving of substance use would use less. This research points to a different, but not contradictory, conclusion: that adolescents who perceive that their parents are primarily concerned with ensuring their safety in regards to substance use are safer about their use. There are three possible reasons for this difference. The primary reason for this difference is that the present
research focuses on those adolescents who do decide to use, and not those who do not. Supporters of the abstinence only approach cite research on children who abstain from substances to show that the approach works. Of course, abstaining from substances altogether is the ultimate harm reduction behavior. However, an abstinence only message fails to address the 47% of adolescents who do use. The results of this study are consistent with the conclusion that among those who do use, those from harm reduction homes are safer than those from abstinence only homes.

The second possible reason for this difference is that studies such as the ones reviewed for this paper were conducted on adolescents about their current behaviors. This study asked participants to reflect on their behaviors during high school after they had graduated, with the idea that this could provide valuable perspective with which participants could reflect upon their behaviors in the past. A limitation to this study is that the results do not tell us what happens with adolescents over time. The long term outcomes for adolescents who used drugs during high school is vital information for planning the approach we use to teach high school aged children about drugs. A similar survey as the one in the study presented here could include questions regarding participant’s current use and related behaviors, comparing these results with data regarding high school use. This data might yield important information about the long-term effects of different parental attitudes in regards to adolescent drug use.

The third possible reason is that one of the problems with the abstinence only approach is that it groups parents into only two groups in regards to their children’s substance use: permissive or disallowing. The harm reduction approach is lumped in with a permissive attitude. From this angle, the conclusion from McDermott’s (1984) study -
that adolescents who perceive their parents to be permissive about drug use - will use more drugs might indeed be true. But this approach sheds no light on the effectiveness of a harm reduction approach. As harm reduction gains popularity as an approach for both adults and adolescents, it will be increasingly important for us to research its components and effectiveness in detail. This can only be done if it is recognized as a valid approach rather than dismissing it as a type of permissiveness.

The Partnership for a Drug Free America’s website tells parents that abstinence only is the only effective approach to use with adolescents: “teens don't deal well with gray areas, so when they're offered alcohol or drugs, you don't want any confusion in their minds” (The Partnership for a Drug-Free America, 2009). In “Safety First: a Reality-Based Approach to Teens, Drugs, and Drug-Education” (2002), Dr. Marsha Rosenbaum refutes this attitude and encourages parents to give their children honest information about drugs- what happens physiologically when we use them, the possible legal ramifications of use, the difference between use and abuse, and ways to reduce possible harm from using drugs. She writes that using exaggeration and scare tactics to convince adolescents not to use drugs might have negative consequences. She writes, the consistent mischaracterization of marijuana may be the Achilles heel of current approaches to prevention, because such misinformation is inconsistent with students’ own observations and experience. As a result, teenagers lose confidence in what we, as parents and teachers, tell them. In turn, they are less likely to consider us credible sources of information. (p. 12)

Stanton Peele (2007) presented another argument for using a harm reduction approach. Peele advocated that we should “make safety the main goal of drug and alcohol
policies for young people” and that “we need to teach more realistic alternatives such as moderation and safe use” (p. 206). His approach informed many of the items in the survey used for this research because he lays out very specific talking points for parents in discussing substance use with the goal of harm reduction.

There are components of Peele’s approach that were beyond the scope of this study to explore. In addition to specific harm reduction measures, he advised parents that children who are raised to think independently will make wise choices. These are important values that were not measured or looked at in this study, but that likely do have implications on the way in which adolescents use substances. Like D.A.R.E. and The Partnership for a Drug-Free America, Peele encouraged parents to begin discussions by asking about the environments in which the child is using and to “withhold judgmental statements – and grimaces” (p. 165). But he diverges from these popular organizations in encouraging parents to “then switch to risk-reduction mode to come up with ways for your children to protect themselves in their social milieu” (p. 165). Avoiding drugs altogether is the first and foremost harm reduction behavior, but if this is not done, Peele lays out many other harm reduction measures. In this study, I attempted to identify the harm reduction behaviors that Peele advocated (e.g. calling your parents if you were too intoxicated to drive, talking to your parents if you felt you had a problem with drug or alcohol use) and measure the degree to which they encouraged harm reduction behaviors. It would be valuable for future research to study families in a qualitative design, so that we can get a more multi-dimensional perspective on children’s behaviors around drug use as they compare to family values and culture, in addition to family rules around drug use.
Although Rosenbaum’s and Peele’s theories are based on sound research, there were no previous studies that directly lend support to their theories. The results from this study support the conclusion that a harm reduction approach leads children to safer behaviors if they do decide to use drugs. Children who are actively taught harm reduction behaviors by their parents and whose parents engage in conversations about drug use employ more harm reduction behaviors than children raised in other types of households, both those with a permissive attitude and those who simply instruct not to use.

The study conducted for this dissertation helps to fill in this gap in the research and finds that there is potential for the effectiveness of a harm reduction approach. However, there are some additional limitations to this study that need to be considered if we are to move beyond the current argument between the abstinence only advocates and the harm reduction advocates. While the abstinence only group tends to lump harm reduction in with the permissive group, the harm reduction similarly barely acknowledges that encouraging abstinence is a harm reduction tool. My study grouped parental types into 4 categories. However, there might be considerable overlap in these categories. A parent considered permissive might also encourage some harm reduction behaviors; a parent who demands abstinence might also tell their child to call them if they are too drunk to drive; a harm reduction-type parent might still tell their child that their preference is for them not to use at all. One of the problems in the national conversation about adolescents and drug use is that the different sides of the argument are unwavering in their stance. The result is that abstinence only groups such as The Partnership for a Drug Free America focus their guidelines to parents on the ultimate message of no drug use, and harm reduction measures are hardly discussed. Similarly, guidelines for parents
from the harm reduction group discuss harm reduction measures in detail with little
discussion about the benefits from abstaining from substance use. It would be helpful to
consider ways in which the two sides can find common ground.

If we instead study parents’ message toward adolescent substance use in terms of
both their level of tolerance (on a scale of zero tolerance to tolerant) and the degree to
which they promote harm reduction behaviors, we might be able to have a more nuanced
approach toward adolescents. In a study like this, parents could be categorized as both
having low tolerance, and high level of promoting harm reduction behaviors. Similarly,
parents could be foremost concerned with their children’s safety, and heavily encourage
harm reduction behaviors while having high tolerance for use. Results from a study like
this could give us more detailed information about what behaviors follow different
parental attitudes. Furthermore, data from a study like this could give us information that
could help organizations like Safety First and The Partnership for a Drug Free America
guide parents while acknowledging that there are different approaches that might work
with adolescents.

In moving beyond the current arguments by the harm reduction and abstinence
only groups to a more comprehensive and inclusive message, it would be valuable for
future studies to research the details of conversations parents currently have with their
children around substance use. A limitation of this study is that it did not include
assessment of the specifics of parental attitudes and instructions regarding substance use.
Therefore, results do not include details of what these parents said or did not say to their
children about use. All one can say is that these participants from harm reduction homes
perceived that their parents “were more concerned with me being safe if I decided to use
substances than with me not using at all during high school” and some examples of rules and limitations their parents tried to instill around use.

As stated above, it would be useful to conduct a similar study using qualitative data to obtain a more detailed accounting of parental approaches or to include an assessment of tolerance levels as well as degree of harm reduction support as elaborated on above. Nonetheless, the results from this study indicate that using a harm reduction approach does not lead to less safe behavior, and might even lead to use of more harm reduction behaviors. According to Rosenbaum (2002), “the [abstinence only] mandate leaves teachers and parents with nothing to say to the 50 percent of students who say ‘maybe’ or ‘sometimes’ or ‘yes’ to drug use – the very teens we most need to reach” (p. 12). This study provides support that providing information on harm reduction behaviors leads to an increase in harm reduction behaviors.

One of the challenges in determining whether a harm reduction approach works is that success is more ambiguous than it is for the abstinence only approach. It is much easier to define a positive outcome with an abstinence only approach since only complete abstinence is considered successful; Research defining success is unambiguous. While Peele (2007) and Rosenbaum (2002) attempt to detail a plan for parents to talk to their children to talk to about substance use, in actuality this approach leaves a lot of room for parents to tailor their own message. In this study, I quantified levels of harm reduction behavior in term of number of harm reductions behaviors manifested among adolescents who do use as a step toward understanding whether this approach has potential to reduce harmful effects of substance use. A limitation of this study is that the results do not tell us
if a harm reduction approach reduced harm, but only that it led to an increase in harm reduction behaviors.

While these results represent an original contribution to the literature on harm reduction, there were some additional problems that must be acknowledged and addressed in any studies aimed at replicating and extending these findings. These problems can be categorized as threats to internal validity or threats to external validity.

**Threats to Internal Validity**

In creating the survey for online use, this researcher made a mistake in not forcing participants into endorsing only one alternative per item. Therefore in the section of the survey when asked to what degree a behavior describes the participant’s behavior regarding drug use, some participants endorsed both “never” and “not applicable.” If I had thrown out all responses in which both were endorsed, the sample size would have been reduced greatly, making it impossible to compute a total harm reduction score for those participants. I therefore chose to infer that their response was “never,” rationalizing this because “not applicable” could still be considered a harm reduction behavior. In retrospect, there are many reasons a participant could have felt that both “never” and “not applicable” were appropriate to mark. For example, they may have used drugs but never by themselves. For this item, marking both “never” and “not applicable” would make sense. Ultimately, if a person endorsed “not applicable” in addition to “never,” I rationalized that even if they did so because they were never in such a situation, then that was in and of itself, a harm reduction behavior. Although it would have been ideal to know more precisely what participants actually meant in this situation, I felt that this rationale was acceptable and allowed me to further analyze the data.
Surveys in which “not applicable” was marked by the participant posed an additional problem: this endorsement did not contribute to the participant’s overall harm reduction behavior score. However, if such items were not counted at all, the participant’s overall score would have been lower because fewer items contributed to it, indicating that they endorsed fewer harm reduction behaviors when in actuality that had not. In order to still include these surveys in the data, I chose to treat “not applicable” the same as “never.” Although this again was not an ideal solution, I felt that “not applicable” was a harm reduction behavior and again allowed me to move forward with the data analysis.

Another problem with the methodology was in the construction of survey items. The result of an internal consistency reliability test was a Cronbach’s Alpha of .459, indicating that the 13 items did not have a substantial degree of variance in common. Possible reasons for this low level of internal consistency involve the wide range of time content. Items such as “I drove a car while intoxicated,” “I engaged in games that encouraged excessive use,” and “I called my parents/caregivers or a taxi rather than drive myself if I was under the influence of drugs or alcohol” appear to represent less extreme examples of drug use behavior than “I called 911 because I overdosed or had alcohol poisoning” or “I used substances when I had a family or school obligation.” This range of item content was incorporated into the survey because all included components of substance use safety measures. This was problematic because there were likely to be very different probabilities of employing some of the measures. Many drug users do not use anything other than alcohol or marijuana, making some of the safety measures a “moot point.” The 2008 Monitoring the Future Study found that 32.6% of all 8, 10 and 12\textsuperscript{th} graders combined used an “illicit drug,” but the number goes down to 16.8% for those
who used “any illicit drug other than marijuana” (Johnston et al., 2007). Therefore, the number of children who manifest extreme or particularly dangerous behaviors when using substances might be small. If this is the case, the item pool should have had fewer items about extremes and a greater number of items about more common behaviors for substance using high school aged children. Because this study was so different than previous studies in the area of harm reduction, there was no previous published studies to base ours on that could have helped avoid such a problem. Furthermore, in this study I attempted to get an overall picture of behaviors; perhaps the problem of internal consistency would have been unavoidable without compromising the study. However, future researchers might ameliorate this problem by narrowing the range of information or types of behaviors addressed or by breaking down harm reduction behaviors by types of drug users. Overall, these threats to internal validity might have been ameliorated by pretesting the survey, which would have likely exposed some of these issues.

Threats to External Validity

Limitations of the study include two threats to external validity. First, as stated above, because the effect size of the data was small, the degree to which the results are generalizable to the population is questionable. Second, participants who completed the survey are different from the general population in an important way. In this study, 62% of participants reported using substances at least once during high school, whereas the national average of high school graduates who have used substances is 47%. This indicates that our sample may not be representative of the general population. The reason for this difference cannot be determined from the present data. The effect of this difference on the responses to the survey also is unclear. In addition, permissive home
environments were represented by only one participant, and it is unclear whether this reflects the actual prevalence in the general population. While our results have important implications on future research, with a small sample size and a sample that may not be representative of the general population, we cannot say that our results are generalizable to the population at whole. This is an issue that should also be addressed in future research.

Conclusion

The results from the present research are encouraging in support of using a harm reduction approach with high school aged children who use substances. This research shows that children who are raised with a harm reduction approach do not endorse more “risky behaviors” than children raised in other home types, and in fact might employ more safety measures around substance use than children raised in other home types.
REFERENCES


Appendix A

Year high school completed: ________
Current age: ________

The following survey asks questions about your parent’s/caregiver’s attitudes toward drug and/or alcohol use during high school. Please answer the following questions as they apply to your behaviors during high school only. If your parents/caregivers were divorced or living in separate households, please answer the questions as they apply to the household or parent that you felt exerted the most influence over your behavior. You may discontinue filling out this survey at any point if you no longer wish to participate in this research. Please allow approximately 15 minutes to complete the survey.

A. Which of the following statements is most representative of your parent(s)/caregiver(s) general attitude toward your drug and alcohol use during high school? Please circle.

My parents did not approve of me using any drugs or alcohol during high school.

My parents were more concerned with me being safe if I decided to use substances than with me not using at all during high school.

My parents did not care and/or would not be upset if I used drugs or alcohol during high school.

My parents gave me mixed messages about using drugs or alcohol during high school.

My parent’s attitude about my substance use during high school was unclear.

B. To what degree do the following statements describe your parent’s attitudes and expectations about your substance use during high school? Please circle the most appropriate response for each question below.

1. Don’t drive a car or be in a car with a driver who is under the influence of drugs or alcohol.
   very much     somewhat     not at all

2. Call us if you are under the influence of drugs or alcohol and cannot drive and we will either pick you up or pay for a taxi with no repercussions.
   very much     somewhat     not at all

3. Do not engage in games that encourage excessive drinking or other substance use (drinking games, binge drinking).
very much somewhat not at all

4. If you or someone you are with overdoses or has alcohol poisoning, call 911.
   very much somewhat not at all

5. Do not use substances by yourself.
   very much somewhat not at all

6. Do not do a certain kind of drug.
   very much somewhat not at all

7. Do not use substances when you have family, school, or personal obligations (e.g. school, studying for an exam, or a family gathering).
   very much somewhat not at all

8. Talk to us if you worried that you have an alcohol or drug problem.
   very much somewhat not at all

9. We expect you to be honest if we ask about the nature of your drug and alcohol use.
   very much somewhat not at all

10. If you are going to use, we would rather you do so at our house or a safe friend’s house whose parent’s have a similar understanding with their child, than elsewhere.
    very much somewhat not at all

11. Do not use drugs or alcohol in places where you do not feel safe.
    very much somewhat not at all

12. If we suspect you are using drugs or alcohol we will take measures to check you (e.g. urine test, smelling breath, etc.)
    very much somewhat not at all

13. If we find out that you are using drugs or alcohol, there will be consequences.
    very much somewhat not at all

14. If you have a drug or alcohol problem, we will find help for you (e.g. rehab, therapy).
    very much somewhat not at all

15. If you do not follow the safety rules we have set, there will be consequences.
    very much somewhat not at all
C. The following describes my behavior(s) regarding recreational drug use and alcohol use during high school:

16. I used recreational drugs or alcohol.
   weekly
   monthly
   more than 3 times during high school, but not regularly
   0 – 3 times total

17. I drove a car while intoxicated.
   0 every time
   1 most of the time
   2 rarely
   3 never
   n/a

18. I got into a car if the driver was under the influence of drugs or alcohol.
   0 every time
   1 most of the time
   2 rarely
   3 never
   n/a

19. I called my parents/caregivers or a taxi rather than drive myself if I was under the influence of drugs or alcohol.
   3 every time
   2 most of the time
   1 rarely
   0 never
   n/a

20. I engaged in games that encouraged excessive use.
   0 every time
   1 most of the time
   2 rarely
   3 never
   n/a

21. I called 911 if someone I was with overdosed or had alcohol poisoning.
   3 every time
   2 most of the time
1 rarely  
0 never  
n/a

22. I called 911 because I overdosed or had alcohol poisoning.
   3 every time  
   2 most of the time  
   1 rarely  
   0 never  
n/a

23. I used substances by myself.
   3 every time  
   2 most of the time  
   1 rarely  
   0 never  
n/a

24. I used substances when I had a family or school obligation.
   0 every time  
   1 most of the time  
   2 rarely  
   3 never  
n/a

25. I spoke with my parents because I felt I had a drug or alcohol problem.
   3 every time  
   2 most of the time  
   1 rarely  
   0 never  
n/a

26. I sought help from people other than my parents for a drug or alcohol problem.
   3 every time  
   2 most of the time  
   1 rarely  
   0 never  
n/a

27. I used drugs or alcohol in unsafe situations.
   0 every time  
   1 most of the time  
   2 rarely  
   3 never  
n/a
28. If my parents asked me about my drug or alcohol use, I was honest with them.
   3 every time
   2 most of the time
   1 rarely
   0 never
   n/a

29. I chose to use substances at my house or a friend’s house because it was safer than doing them elsewhere.
   3 every time
   2 most of the time
   1 rarely
   0 never
   n/a
### Appendix B

**SPSS Output for Section 2 of Survey**

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*Note.* The item numbers in this table correspond to the following survey items, from the second section of the survey:

1. Don’t drive a car or be in a car with a driver who is under the influence of drugs or alcohol.
2. Call us if you are under the influence of drugs or alcohol and cannot drive and we will either pick you up or pay for a taxi with no repercussions.
3. Do not engage in games that encourage excessive drinking or other substance use (drinking games, binge drinking).
4. If you or someone you are with overdoses or has alcohol poisoning, call 911.

5. Do not use substances by yourself.

6. Do not do a certain kind of drug.

7. Do not use substances when you have family, school, or personal obligations (e.g. school, studying for an exam, or a family gathering).

8. Talk to us if you worried that you have an alcohol or drug problem.

9. We expect you to be honest if we ask about the nature of your drug and alcohol use.

10. If you are going to use, we would rather you do so at our house or a safe friend’s house whose parent’s have a similar understanding with their child, than elsewhere.

11. Do not use drugs or alcohol in places where you do not feel safe.

12. If we suspect you are using drugs or alcohol we will take measures to check you (e.g. urine test, smelling breath, etc.)

13. If we find out that you are using drugs or alcohol, there will be consequences.

14. If you have a drug or alcohol problem, we will find help for you (e.g. rehab, therapy).

15. If you do not follow the safety rules we have set, there will be consequences.