

RECREATIONAL DRUG USING BEHAVIOUR AND
LEGAL BENZYLPIPERAZINE PARTY PILLS

by

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Abstract

Benzylpiperazine (BZP) is a stimulant drug that produces effects similar to amphetamines (Campbell, Cline, Evans, Lloyd, & Peck, 1973). It has been sold legally in New Zealand in the form of 'party pills' since 2000. The legal status of BZP party pills has been debated in New Zealand as the media reported cases of apparent overdoses and adverse reactions leading to hospitalization (Brogden, 2005; Crewdson, 2007; Reiber, 2005; Rankin, 2006). Representatives of the BZP party pill industry publicly defended their product claiming that BZP party pills were reducing substance related harm by reducing illicit substance use (Bowden, 2007b, p.1). They also claimed that banning BZP would result in an increase in use of illicit substances, especially methamphetamine or 'P' (Barnett, 2007).

The overall aim of this thesis is to test the claims that BZP party pills reduce substance related harm by reducing illicit substance use, and to identify potential outcomes of a BZP party pill ban. In addition, the perceived risks of party pill and other drug use will be examined. In chapter one I review key concepts relating to BZP party pill use: recreational drug use, harm reduction, and risk perception. In chapter two the history and New Zealand context of BZP party pills are reviewed.

In chapter three, study one qualitatively analyzes BZP party pill marketing material in an attempt to describe the culture and discourse promoted by the BZP party pill industry. This analysis demonstrated that BZP party pills were primarily marketed as part of a recreational drug using culture.

In chapter four, study two quantitatively investigated whether BZP party pill use was associated with reduced levels of illicit substance use in a sample (N=796) of first year university students. This study also examined the relationship between risk perception and frequency of substance use. Study two demonstrated that BZP party pill users are generally recreational poly-drug users who used illicit substances equally as often as illicit users who did not use BZP party pills. BZP party pills did not appear to reduce illicit substance use, and therefore harm. For the majority of substances there was no significant relationship between risk and use behaviour. The legal status of substances appeared to be important when participants rated the risks of use. Legal substances (including BZP) tended to be rated as safer than illegal substances.

In chapter five, study three qualitatively analyzed 60 interviews with regular BZP party pill users to identify potential outcomes of a BZP party pill ban. A combination of alternatives were likely to be used by BZP party pill users, primarily illicit substances, especially ecstasy, as well as alcohol, and black market BZP. However methamphetamine (P) was an unpopular alternative. Study three also analyzed how BZP party pill users assess the costs and benefits of BZP party pill use. Decisions to use BZP party pills relied heavily on the benefits of use, rather than the costs.

In chapter six, the general discussion describes the implications, ethical considerations, limitations, and outcomes of the research.

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General overview

This thesis will examine Benzylpiperazine (BZP) party pill use in New Zealand with a focus on three important areas: whether BZP party pills function to reduce substance related harm, what impact banning BZP would have on regular users, and how users and non-users of BZP and other substances perceive the risks of drug use. These questions arose out of political and social debate around the legal status of BZP party pills in New Zealand between 2000 and 2008. I was motivated to conduct this research as much of the debate was based on anecdotal evidence, especially on the part of the BZP party pill industry. In 2005, when I embarked on this research, the BZP party pill industry were making claims in the media that their products were reducing harm and saving lives by reducing illicit substance use, and that a BZP ban would result in increased illicit drug use, especially 'P' or methamphetamine use (Barnett, 2007; Bowden, 2005, 2007b; Drought, 2007; Nippert, 2007; New Zealand Press Association, 2007; Thompson, 2006), and a black market for BZP (Crewdson, 2007; Hamilton, 2006; New Zealand Herald, 2006; New Zealand Press Association, 2006; Nippert, 2007; Thompson, 2006). Supporters of a BZP ban argued that party pills were "giving young people the message that psychoactive drugs are acceptable" (National MP Jacqui Dean, page B3 in du Chateau, 2007), and that BZP was causing harm, pointing to reports of severe reactions such as seizures, comas, and addiction (Brogden, 2005; Chalmers, 2007; The Dominion Post, 2007). The Minister responsible for reviewing the law on BZP, Mr. Jim Anderton, stated that he did not believe a ban would result in illicit substance use, or a black market in BZP (Crewdson, 2007). It was incredibly important to

test whether there was any support for the claims made by both sides of the debate, as those made by the BZP party pill industry predicted serious consequences if BZP were to be made illegal.

This research is exploratory in nature, and aims to empirically test the claims made about potential outcomes of a BZP party pill ban. Study 2A (chapter four) and 3A (chapter five) directly test these claims. The findings are largely descriptive, and have contributed to a report to the health select committee on the Misuse of Drugs Amendment Bill, which proposed to ban BZP. The findings from these studies were later quoted in parliament during the final reading of the bill. In addition to testing BZP party pill industry claims, I also examine how the risks of BZP use are perceived, and whether its status as a legal substance affects risk perception. In chapter one I review literature on recreational drug use, harm reduction, and risk perception - important concepts, as they are fundamental to the claims made by the BZP party pill industry and its opponents. In chapter two I give a detailed review of BZP and the New Zealand context. I conduct three studies for this thesis. The first (chapter three) is a qualitative analysis of BZP party pill marketing material. This analysis sets the scene and describes the culture and marketing associated with BZP party pills. The second study (chapter four) is in two parts. The first takes a quantitative look at BZP party pill and other drug use, with the aim of testing whether BZP party pill use is associated with reduced illicit substance use, and therefore reduced harm. The second part of study two quantitatively examines the relationship between risk perception and drug using behaviour, and how risks are perceived for different substances, including BZP. Study three (chapter five) is

qualitative, and the first part is largely descriptive, dealing primarily with how regular BZP users plan to deal with a BZP ban, specifically which substances are likely alternatives to BZP party pills. The second part is a more detailed analysis of how BZP party pill users balance the costs and benefits of BZP party pill and other drug use. Finally, implications and conclusions are discussed in chapter six.

Chapter One

Recreational Drug Use, Harm Reduction, and Risk Perception

Overview

This chapter will review literature relevant to three important areas relating to drug use in general, but also to BZP party pills: recreational drug use, harm reduction, and risk perception. I have chosen to review these issues before reviewing BZP party pills as these concepts are fundamental to the debate around the legal status of BZP. In part one I attempt to define the term 'recreational drug use'. As BZP party pills are perceived to be recreational drugs, it is important to understand what recreational drug use is, and how or if it differs from other patterns of drug use. Various definitions of recreational drug use are discussed, and research on recreational drug use in New Zealand is reviewed. In part two harm reduction is described as an approach to managing drug related harm. As BZP is sometimes touted as a harm reduction tool, it is important to understand the philosophies behind harm reduction and how it works. I compare and contrast harm reduction to alternative approaches to drug management, and briefly outline emerging debates within the harm reduction movement. I describe harm reduction in practice, and discuss the appropriateness of BZP party pills as a harm reduction tool. Finally, in part three, I review literature about risk perception and drug use. Risk perception is important because it appears to be related to drug using behaviour. I therefore explore this relationship, and discuss the relevance of risk perception to BZP party pill use.

Part 1 - What is recreational drug use?

At the time of undertaking this work, BZP party pills (see chapter two for review) were marketed as legal alternatives to illegal recreational substances, and were perceived to be a substance for recreational use (see chapter two). Therefore, it is important to understand what recreational drug use is, and how or if recreational use is different from other kinds of drug use, such as abuse and dependence. This review of recreational drug use describes the kind of drug use and drug user that BZP party pills were primarily associated with in New Zealand. Recreational drug use is a poorly defined concept. The Concise Oxford Dictionary (1995) defines recreation as “the process or means of refreshing or entertaining ones self” or “a pleasurable activity”. This definition would imply recreational drug use for the purpose of entertainment and pleasure, and this may be the most appropriate definition. Research literature, however, generally fails to define recreational drug use (Davison & Parrott, 1997; Scholey, Parrott, Buchanan, Heffernan, Ling & Rodgers, 2004; Sim, Jordan-Green, Lee, Wolfman & Jahangiri, 2005), or arbitrarily selects criteria to define it (for example: Nicholson, White & Duncan, 1999). Several definitions of recreational drug use have been applied. The term is frequently used to describe use of ‘club drugs’, restricting recreational use to a specific environment (raves and dance parties), and to use of specific drugs, most frequently ecstasy, GHB, Ketamine, LSD, Rohypnol, psilocybin mushrooms, and methamphetamine (Krebs & Steffey, 2005; Parks & Kennedy, 2004). Benzylpiperazine party pill use could fit within this description, as they are frequently used in the same settings as so called ‘club drugs’ (Wilkins, Girling, Sweetsur, Huckle & Huakau, 2006). Recreational

drug use was first examined in detail in the context of raves or dance parties (for example: Lenton & Davidson, 1999; Parks & Kennedy, 2004; Ricaurte & McCann, 2005), however, typical 'club drug' use has spread beyond rave and dance party settings (Boeri, Sterk, & Elifson, 2004; Hansen, Maycock, & Lower, 2001; Krebs & Steffey, 2005; Parks & Kennedy, 2004), so the term recreational drug use is often used instead. Gourley (2004) conducted qualitative interviews with ecstasy users in Australia, and provides an example of how recreational drug use can be defined in terms of the type of drug used. An interviewee suggests that some drugs cannot be used recreationally when she states "smackees [heroin users] give drug users a bad name as they go past the point of recreation" (page 62). Benzylpiperazine party pills might be accepted as a recreational substance due to the similarity of their effects to other recreationally used substances such as methamphetamine, dexamphetamine, and ecstasy (Baumann, Clark, Budzynski, Partilla, Blough, & Rothman, 2005; Brennan, Johnstone, Fitzmaurice, Lea, & Schenk, 2006; Campbell, Cline, Evans, Lloyd, & Peck, 1973). However, recreational drug use is more than just use of a select group of substances. Indeed, any drug can be used recreationally, even substances that are commonly associated with addiction, such as heroin (Nicholson, White, & Duncan, 1999).

Often recreational drug use implies a particular pattern of drug use that is infrequent, yet regular, poly-drug use. Poly-drug use is a pattern of drug use where an individual uses a variety of different substances. A lack of dependence or addiction is assumed, as the substance is not desired or craved between uses. Much research has described the recreational pattern of drug use (for

examples see: Boys, Marsden, & Strang, 2001; Conner, Sherlock, & Orbell, 1998; Duff, 2005; Nicholson et al., 1999; Parks & Kennedy, 2004). The frequency of recreational drug use differs between substances. In an American study of 906 substance users, Nicholson et al. (1999) found that alcohol and cannabis were used most frequently, with weekly use by 36 and 43% of the sample, respectively. Hallucinogen, cocaine, stimulant, opiate, and depressant use were much less frequent, with 72.4% using these substances once a month or less. Similar patterns of use are reported in other studies. Duff's (2005) study of party drug use (cannabis, ecstasy, speed, cocaine, methamphetamine, Ketamine, LSD, and GHB) in Melbourne, Australia, found that 49% of respondents (N = 379) used party drugs less than monthly, and only 7.5% used them more than once a week. In all the studies cited above, the overwhelming trend for recreational drug use is poly-drug use, with alcohol and cannabis commonly used with illicit substances like ecstasy and amphetamines. In New Zealand, BZP party pills could be part of this pattern of poly-drug use.

The purpose for which drugs are used could also define recreational use. Boys, Marsden and Strang (2001) investigated user's reasons for taking different drugs. The most popular reasons for taking ecstasy and amphetamines, both commonly used recreational drugs, were to keep going when out with friends, to enhance an activity, to feel elated or euphoric, to stay awake, and to feel intoxicated. Similar reasons were given for cocaine and LSD. The authors concluded that the primary incentive for use of these drugs was to experience their effects and enhance social activity. It could be argued that the motivation for recreational drug use is different from that of a dependant user, whose

decision to use is motivated by addiction. As BZP party pills are similar to amphetamines and ecstasy (Baumann et al., 2005; Brennan, Johnstone, Fitzmaurice, Lea, & Schenk, 2006; Campbell et al., 1973) the motivations to use could also be similar, and the motivations that define recreational use could apply to BZP party pills.

Another way to define recreational drug use is by describing the typical user. Nicholson et al. (1999) found that recreational users appear to be different from clinically drug dependant populations in that recreational users were generally in full time employment, well educated, in good physical health, and were indistinguishable from the general population when mental well being was measured. This finding is supported by other studies that found recreational drug users tend to be educated and employed (Boeri, Sterk, & Elifson, 2004; Hansen, Maycock, & Lower, 2001; Parks & Kennedy, 2004). Wilkins, Girling, Sweetsur, Huckle, and Huakau's (2006) study of BZP party pill use in New Zealand found that BZP party pill users were demographically similar to recreational drug users described in other studies. However this definition is somewhat circular, as it searches for a particular kind of user in an attempt to define that user.

Ultimately, recreational drug use is a combination of all the descriptions above, and BZP party pill use in New Zealand fits within each of these definitions (see chapter two). It is seen as different from dependence and addiction in terms of the pattern of use, the motivation to use, and the users themselves. Nicholson et al. (1999) describe the level of drug use in their sample as "well controlled" (page 421). The research literature reviewed here suggests that recreational drug use is non-delinquent, in that users are generally functioning members of

society whose only deviance is infrequent, but regular use of illicit substances on social occasions. The implication is that recreational drug use has become a normal part of life. Duff (2005) suggests that recreational drug use has been normalised, and that “sensible” drug use has become a “mainstream” (page 167) activity. If recreational drug use has been normalised, then the popularity of BZP party pills in New Zealand is unsurprising.

The normalisation of drug use has been described since the mid 1990's (see Parker, 2005; Parker, Williams & Aldridge, 2002). These original normalisation researchers were attempting to explain the rapid increase in recreational drug use among young Britons over the 1990's, and the apparent acceptance of such behaviour among both drug using and non-using peers (Parker, Williams & Aldridge, 2002). Normalisation is, in essence, the process of social and cultural change that leads to the acceptance of a once deviant or stigmatised behaviour. The ‘normalisation’ of recreational drug use has since been documented outside of the UK, with Duff (2005, page 167) describing how “recreational [drug] use seems to have become increasingly integrated into the leisure and consumption landscapes of many Australian youth cultures.” However, there has been debate over the validity of the normalisation hypothesis (see Measham & Shiner, 2009; Wibberley & Price, 2000), where opponents believed that the acceptability of drug use was being exaggerated by the use of lifetime measures of drug use, and the continued concerns of young people around drug use had not been adequately acknowledged. Wibberley and Price (2000) explain that there is evidence to support both sides of the normalisation debate, and that normalisation might be more or less evident among different

cohorts depending on various factors, such as age and prevalence of drug use. Recently, the two main protagonists of the normalisation debate have come together and published a paper describing the common ground on which both sides of the debate now stand (Measham & Shiner, 2009). In their conclusion Measham and Shiner (2009, page 6) agree that:

“...recent increases in drug use have been facilitated by the growing economic significance of leisure fuelled by the changing political economy of post-industrial societies and marked by the growth of a massively expanding, consumption-oriented night-time economy; that widespread drug use has been encouraged by the emergence of increasingly protracted transitions into adulthood; and that many young people continue to ‘grow out’ of drug use, albeit in ways that reflect the changing nature of adolescence and adulthood.”

It appears that both sides of the normalisation debate can agree that drug use takes place in a far more complex context than expressions of deviant behaviour by delinquent youth. The increasing prevalence of drug use has at least in part been facilitated by socio-cultural changes that have allowed young people to perceive drug use as normative.

Problematic recreational drug use?

However, it would be a mistake to believe that recreational drug use is without harm, or risk of dependence. Parks and Kennedy (2004) reported that the majority of their recreational drug-using sample met criteria for drug abuse or dependence on the Drug Abuse Screening Test (Skinner, 1982, cited in Parks & Kennedy, 2004). It is possible that recreational BZP party pill users could experience abuse or dependence problems also. Many studies of recreational drug use focus on ecstasy, a substance whose effects are mimicked by BZP

party pills containing the added ingredient trifluoromethylphenylpiperazine (TFMPP, see chapter two) (Baumann et al., 2005). Cottler, Womack, Compton, and Ben-Abdallah (2001) found that the majority of their ecstasy-using sample met the DSM-IV criteria for abuse (characterized by drug use that causes impairment in the users daily life), dependence (characterized by tolerance, withdrawal, or an inability to control drug use), or both. Only 23% of their sample of ecstasy users were neither abusing nor showing signs of dependence. Despite ecstasy's early reputation for being a 'safe' drug (Downing, 1986), 43% of the users in Cottler et al.'s (2001) study met the diagnostic criteria for dependence, 68% of those exhibited symptoms of both tolerance and withdrawal, and 18% of the sample reported craving ecstasy between doses. These are not characteristics expected from a drug described as relatively benign in earlier research (Downing, 1986). Perhaps similar issues around dependence and abuse will be evident for BZP party pill users over time (See chapter 2 for review of BZP's similarities to other dependence inducing drugs).

Furthermore, there is evidence of harms other than dependence associated with recreational drug use. Topp, Hando, Dillon, Roche, and Solowij (1999) conducted a study of 329 ecstasy users across three major cities in Australia. Thirty three percent of ecstasy users in this sample had previously injected another drug, while 16% had injected ecstasy. Bingeing (using a drug continuously without sleep for 48 hours or more) was common. Thirty five percent had binged on ecstasy, and 42% had binged on one or more party drugs in the six months prior to participating in the study. Bingeing is a high-risk behaviour, as the effects of the substances consumed are combined with the

effects of sleep deprivation and fatigue. Topp et al. (1999) examined the incidence of physical and psychological side effects experienced by ecstasy users. An average of eight physical, and four psychological negative side effects of ecstasy use were reported. These side effects were often related to the acute effects while intoxicated or coming down off ecstasy. However users also reported more long-term problems that they attributed to their ecstasy use. Forty two percent experienced occupational problems, and 40% had relationship problems associated with their ecstasy use. Twenty two percent had sought help from a health practitioner for ecstasy related problems, and 25% admitted wanting to reduce their level of ecstasy use. By contrast, in Wilkins, Girling, Sweetsur, Huckle, and Huakau's (2006) BZP party pill study, only 4.8% of users met the criteria for dependence. Levels of dependence may increase over time. At the time of Wilkins, Girling, Sweetsur, Huckle, and Huakau's (2006) study, BZP party pills had only been available for six years. Perhaps levels of abuse and dependence for BZP would be similar to those of ecstasy had it been available for a similar amount of time. It should also be noted that the measure of dependency used in Wilkins, Girling, Sweetsur, Huckle, and Huakau's (2006) study (the Short Dependency Scale, or SDS) is not a validated measure of BZP party pill dependence.

The levels of dependence found in Topp et al.'s (1999) study were found in a sample with similar demographic characteristics described in other studies previously reviewed (Nicholson et al., 1999; Wilkins, Girling, Sweetsur, Huckle, & Huakau, 2006). Ecstasy users in Topp et al.'s (1999) study were young, relatively well educated, employed members of society, with little contact with

police. Levels of dependence were not, therefore, an artifact of any demographic anomaly.

Tolerance and abuse liability of ecstasy have also been demonstrated in animal studies (Parrott, 2005; Schenk, Hely, Lake, Daniela, Gittings, & Mash, 2007). Human studies have found ecstasy use can cause cognitive deficits (Kalechstein, De La Garza, Mahoney, Fantegrossi, & Newton, 2007; Quednow, Kuhn, Hoppe, Westheide, Maier, Daum, & Wagner, 2007), and neuroimaging studies have found evidence that ecstasy use can cause serotonin depletion in the human brain (Cowan, 2007). An animal study by Fantegrossi et al. (2005) found that BZP has abuse potential, so even as a recreationally used substance, BZP has a risk of problematic use similar to other so called recreational substances.

Recreational drug use has been a subject of increasing research interest in New Zealand. Several large studies have investigated the prevalence and patterns of drug use in New Zealand (Ministry of Health, 2001; Ministry of Health, 2007; Wilkins, Girling, & Sweetsur, 2006; Wilkins, Girling, Sweetsur, & Butler, 2005a, b, & c). A report on the socio-economic impact of amphetamine type stimulants (ATS) in New Zealand by Wilkins, Reilly, Rose, Roy, Pledger, and Lee (2004), described how the common recreational drugs amphetamine, methamphetamine, and ecstasy are used in New Zealand. Five thousand eight hundred people were interviewed as part of the 2001 National Drug Survey. Twelve percent of New Zealanders aged between 13 and 45 years had used an ATS before, and 6% had used them in the previous year. Amphetamine was the most popular ATS, used in the previous year by 5% of the sample, while ecstasy

had been used by 3% in the previous year. Men were more likely to have used each of the ATS investigated, and ATS use was most common between the ages of 18 and 29. Patterns of use in New Zealand were similar to those found overseas, where use was similarly infrequent. The majority of users took ATS less than five times a year, 61% used ecstasy one to two times a year, and 54% used amphetamines one to two times a year. Poly-drug use was common, and alcohol and cannabis were the most popular alternative substances for ATS users, whether co-administered with ATS or used on separate occasions. The sample demographics were also similar to those of overseas studies. The majority of participants were either employed full-time or studying. Amphetamine Type Stimulant users overall were less likely to earn over \$50,000 than the general population, however ecstasy users were equally likely as the general population to earn \$50,000 or more. A similar pattern was found for educational attainment. Amphetamine type stimulant users in general were less likely than the general population to have completed a degree, but ecstasy users were *more* likely than the general population to have completed a degree. This fits with international research that has described recreational ecstasy users as functioning, non-delinquent members of society (Duff, 2005). Wilkins et al. (2004) compared the prevalence of ATS use in New Zealand to that of Australia and found that rates of use in New Zealand were generally lower than Australia, especially for ecstasy, although patterns of use are similar. Similar patterns of recreational drug use have been found in other major drug studies in New Zealand (Ministry of Health, 2001; Ministry of Health, 2007). Benzylpiperazine is a stimulant drug and would be expected to be used at a similar rate to ATS,

however the legal status of BZP means it is more accessible and rates of use are in fact much higher (Wilkins, Girling, Sweetsur, Huckle, & Huakau, 2006).

The Illicit Drug Monitoring System (IDMS) tracks trends in illicit substance use by interviewing illicit drug users about their drug use (Wilkins, Girling, & Sweetsur, 2006; Wilkins et al., 2005a; 2005b; 2005c). The researchers gathered detailed information about how drugs are used in New Zealand by conducting structured interviews with users of specific substances (methamphetamine and ecstasy) and intravenous drug users. The IDMS reveals patterns of use not uncovered in larger prevalence based studies. For example, in the 2006 IDMS, 11% of frequent drug users said they had injected ecstasy in the six months prior to answering the survey. Topp et al. (1999) reported a similar finding in their Australian study where 16% of ecstasy users had injected ecstasy at least once in the past. Intravenous delivery is a higher risk method of consuming any substance compared to alternative methods (such as swallowing in the case of ecstasy). Injecting ecstasy when a safer (and easier) method is readily available (swallowing) might indicate problematic drug use. It could be suggested that injecting ecstasy might be an option for users who have developed tolerance to the drug when used orally. This finding from the 2006 IDMS shows that for a proportion of people, ecstasy use might be problematic. Further, the rate of injecting ecstasy increased from 2005 to 2006. In 2005 none of the regular ecstasy users, and only 6% of regular methamphetamine users, had injected ecstasy in the previous six months (Wilkins et al., 2005b; 2005c). Increasing rates of intravenous ecstasy use could indicate the emergence of an ecstasy dependence issue in New Zealand. A small number (1.2%; $n = 3$) of BZP users

in Wilkins, Girling, and Sweetsur's (2006) study reported injecting BZP. Just as other recreational substance use can become problematic for a proportion of users, BZP use appears to have a small number of high-risk users.

The New Zealand studies of drug use show that recreational drug use patterns in New Zealand are similar to those found overseas (Ministry of Health, 2001; Ministry of Health, 2007; Wilkins et al., 2004; Wilkins et al., 2005b; 2005c; Wilkins, Girling, & Sweetsur, 2006). The demographic characteristics of recreational ecstasy users in New Zealand appear to be comparable to those in other developed countries. Though the majority of ecstasy users appear to be infrequent and controlled users, studies in New Zealand and overseas have found that a proportion of ecstasy users appear to show signs of dependence (Cottler et al. 2001; Parks & Kennedy, 2004; Topp et al., 1999; Wilkins, Girling, & Sweetsur, 2006). Patterns of BZP party pill use seem to fit with patterns of use for other recreationally used substances. It has been suggested that recreational drug use is, for some people, the beginning of the pathway to problematic drug careers (Parker, 2005). The normalisation of recreational drug use has blurred the line between 'soft' and 'hard' drugs, or 'recreational' and 'dependent' drug use, and recreational users may slip into problematic drug use through association with the recreational drug use scene (Parker, 2005). The existence of a legal recreationally used substance such as BZP could be seen to accelerate this process of normalisation.

The emergence of legal BZP party pills is a unique aspect of recreational drug use in New Zealand (see chapter two for detailed history and description). The 2006 IDMS found that the majority (73%) of illicit drug users had used BZP

party pills in the past (Wilkins, Girling, & Sweetsur, 2006). Benzylpiperazine party pills were especially popular with ecstasy users. Ninety one percent of ecstasy users had used BZP party pills at some time in the past, and 65% had used them in the previous six months. Benzylpiperazine party pills had been used on an average of eight days in the previous six months by ecstasy users and illicit substance users in general. Twenty three percent of ecstasy users had used BZP party pills concurrently with ecstasy (Wilkins, Girling, & Sweetsur, 2006). Benzylpiperazine party pills appear to be part of the New Zealand recreational drug user's repertoire, but it is not clear whether their use represents a harm reduction measure, or was just another item on the recreational drug user's menu. In the next section I will review harm reduction literature, and discuss the appropriateness of BZP as a harm reduction tool.

Part 2 - Harm reduction

Benzylpiperazine party pills have been touted by the BZP party pill industry as the ultimate harm reduction tool for recreational drug users (e.g. Bowden, 2007a). Promoters of BZP party pills claim that they protect users from harm by "providing safer, legal alternatives to illegal drugs" (Matt Bowden, in New Zealand Press Association, March 2, 2007). Indeed, on the occasions where illicit drug users chose BZP party pills over illicit substances, they were at least protected from the harm of criminal prosecution. Whether BZP party pills were an effective harm reduction tool depends on whether illicit users substituted illegal substances with BZP party pills on enough occasions to substantially reduce overall harm. The following review of harm reduction gives an overview of the debates, philosophies, and practices central to harm reduction policies and

programmes. This review should also help the reader to assess the suitability of BZP party pills as a harm reduction tool.

Harm reduction (sometimes called harm minimization) is an approach to substance use that aims to manage substance related harm in both policy and practice (Marlatt, 1996). It recognizes that there are harms associated with substance use, but that abstinence is not immediately achievable or desirable for some users (Marlatt, 1996). The BZP party pill industry uses this philosophy by promoting BZP party pills as a safe legal alternative to illicit substances, ideally reducing illicit substance use and associated harm, without demanding abstinence. Drug-related harms can impact drug users, other individuals, communities, or society as a whole (Kleinig, 2008). For example, as HIV spread through intravenous drug using communities in the late 1980's, the impact affected all levels of society, starting with individual drug users. Communities were also affected as the health of their members deteriorated, HIV was passed from infected drug users to non-users, and local resources were consumed managing the epidemic. At a societal level, harm is often discussed in terms of financial cost to government (Kleinig, 2008). In the case of the HIV epidemic, governments had to fund medical care and treatment for a rapidly increasing number of infected people. Harm reduction aims to reduce harm at any level, from individual drug users to society as a whole (Kleinig, 2008). Many harm reduction programmes manage to reduce harm at multiple levels, such is the case with Needle Exchange Programmes (NEP), reviewed below.

Harm reduction is an alternative to the 'just say no' approach typified by the United States' policies in their 'war on drugs' (Marlatt, 1996). Marlatt (1996)

explains that such policies focus on 'use reduction', and are based on two, often conflicting, models of drug use. The 'moral model' of drug use criminalizes users and deems them worthy of punishment. Drug control laws in the United States focus on preventing drugs from crossing borders into the country, and incarcerating suppliers and users. These policies function to reduce the supply of substances. The second model of drug use that Marlatt (1996) describes is the 'disease model'. In contrast to the moral model, the disease model tends to portray drug users as sick and in need of treatment. Treatment programmes work towards the goal of abstinence, eliminating the demand for drugs, one individual at a time. By reducing supply through criminalization, and demand through treatment, these two approaches to drug use focus on 'use reduction', with the ultimate goal of a drug free society. Harm reduction recognizes that such a goal is unrealistic, and likely to be unachievable. Harm reductionists accept that people will use drugs, and take a pragmatic approach to reducing the risk of harms for those people (Marlatt, 1996). New Zealand drug policy officially endorses a harm reduction approach (Ministerial Committee on Drug Policy, 2007), while treatment programmes operate along a continuum of care from harm reduction to abstinence, and New Zealand drug laws focus on supply reduction. A combination of use reduction and harm reduction approaches are employed in New Zealand.

At the core of harm reduction is the principle of amorality, value neutrality, and non-judgment of drug use (Kleinig, 2008). Drug use is seen as neither good nor bad and the focus is not on the behaviour but on managing the effects of drug use (Kleinig, 2008). This has been a hotly debated area within the harm

reduction movement (e.g. Hathaway 2001; 2002; Kleinig, 2008; Stafford; 2007). Some suggesting that value neutrality is not only unachievable (Kleinig, 2008), but detrimental to the human rights of drug users (Hathaway, 2001; 2002; Stafford, 2007). In Kleinig's (2008) discussion of the ethics of harm reduction, he suggests that harm reduction policies cannot be value neutral, as they make moral judgments as to what is harmful. Harm reductionists place great value on the reduction of harm, judging harm to be bad, and its reduction to be good. Kleinig (2008) encourages harm reductionists to advocate for harm reduction on moral grounds, as public policy operates on a moral currency, rather than simple analysis of pragmatic practices. He suggests that harm reduction programmes should adopt policies that are *unconditional* on underlying behaviours, rather than *value neutral*. Stafford (2007) argues for a stronger emphasis on human rights, suggesting that harm reduction's lack of moral investment in current prohibitionist drug policies amounts to a breach of human rights. He argues that prohibition denies drug users sovereignty over their bodies and minds, including which drugs they use, and that harm reduction policies should be morally invested in supporting drug law reform. Meanwhile, Marlatt (1996) describes the reformation of cannabis policy in the Netherlands, where lawmakers found that the legal consequences of cannabis use tended to outweigh any other harms associated with its use. It was on this basis that cannabis was decriminalized in the Netherlands in 1976. Many harm reductionists argue that prohibition is responsible for causing more harm than substance use itself, and that the legal consequences of substance use outweigh the health and social consequences. In situations such as this, Stafford would argue that harm reduction advocates

are morally obliged to lobby for drug law reform. As the political debate rages on, in practice, the principles of amorality and value neutrality function to allow drug users to access assistance without fear of judgment. Harm reductionists value the drug user's human right to life, security, health care, and protection from harm (Stimson, 2007).

Harm reduction usually takes a "bottom-up" approach to tackling drug related problems. Programmes are often run by drug user organizations, and user advocacy plays a large part in harm reduction. Often those providing the services are also receiving them. Many programmes start at a local level from within user communities, avoiding the stigmatization and condemnation that often marginalizes users and prevents them from accessing the help they need (Marlatt, 1996). Although initially the BZP party pill industry was established by a former illicit substance user (Barnett, 2007), the industry quickly grew and competing franchises evolved in what appeared to be a profitable business for private companies (see chapter 2 for review of BZP party pill industry).

Another important principle of harm reduction is the idea that drug policy should be based on empirical evidence, not ideology and dogma (Tammi & Hurme, 2007). This means that interventions and programmes should be evidence based, and specific harms should be identified and targeted (Stimson, 2007). The efficacy of harm reduction programmes should then be assessed.

Applying the principles of Harm Reduction

The principles or ideals of harm reduction have been applied to many harm reduction programmes and services that have evolved since harm reduction began in the 1980's with the first Needle Exchange Programmes

(NEP). Needle exchange programmes were established in New Zealand in 1988 in response to the threat of a Human Immunodeficiency Virus (HIV) epidemic (Kemp & Aitken, 2004). The primary aim of a NEP is to prevent needle sharing among intravenous drug users (IDU) to reduce the risk of the HIV and Hepatitis C Virus (HCV) transmission. New Zealand NEP reduce the risk of blood borne virus (BBV) transmission in two ways, by distributing clean needles and syringes, and taking dirty needles out of circulation. Programmes operate from dedicated needle exchange facilities that are run by IDU organizations, and through community pharmacies that volunteer to be part of the programme (Sheridan, Henderson, Greenhill, & Smith, 2005). Needle exchange programmes provide more than just clean injecting equipment for IDU. They also offer access to other harm reduction measures, including support and treatment services, information and advice, advocacy, condoms, and importantly, access to an otherwise hidden population, allowing dissemination of information to the people who need it most (Ritter & Cameron, 2006). The efficacy of NEP is usually measured by comparing the prevalence of BBV in cities or countries with and without NEP. Meta-analysis of NEP evaluations has shown that cities and countries with NEP have lower rates of BBV transmission than those that do not (Ritter & Cameron, 2006; Macdonald, Law, Kaldor, Hales, & Dore, 2003). Needle exchange programmes have been found to be economically beneficial, costing less to run than treatment for IDU that would otherwise be infected with BBV. Assessing the efficacy of NEP solely on economic rather than humanitarian grounds has been ethically and morally questioned by Kleinig (2008), however harm reduction must be economically viable if policies are to be attractive to governments. Harm

reduction needs to be effective in both economic and humanitarian terms. The effectiveness of BZP party pills as a harm reduction tool on economic or humanitarian grounds has never been established.

The effectiveness of NEP inspired other harm reduction programmes, and public drug education campaigns are increasingly common. They deliver factual advice about harms rather than preaching abstinence. This information encourages drug users to take responsibility for their own safety when using substances. A British example of such a campaign is the London Dance Safety Campaign, where posters and leaflets were distributed in popular public transport networks and popular dance clubs (Branigan & Wellings, 1999). The information in these campaigns directly targeted users of specific drugs or drugs used in specific contexts. Campaign materials explained the risks of drug use, but also gave practical advice on how to minimize them. In New Zealand the Ministry of Health (1999) published a pamphlet and guidelines for dance party attendees and organizers. The pamphlet gives factual information and spells out the potential harms for the most commonly used dance party drugs. Practical advice was also given on how to minimize the risks of harm, from safe levels of water consumption, to safe sex practices.

As information about drugs and associated harms has become more readily available, some users have begun to take it upon themselves to reduce their personal risk of harm and to share harm reduction information with others in their drug using peer group (Allott & Redman, 2006; Panagopoulos & Ricciardelli, 2005). Ecstasy users commonly report monitoring their water intake to prevent dehydration and over hydration, preloading and postloading with vitamins and

minerals to alleviate 'comedown', limiting the dose and frequency of ecstasy use to manage the risks of neurotoxicity, and nominating a carer for events, who remains straight and sober in case of emergency (Allott & Redman, 2006). Ecstasy users have also become aware that tablets sold as ecstasy can contain adulterated ingredients that could potentially be harmful, and many users attempt to determine pill content (Johnston et al., 2006). The purity of ecstasy tablets changes over time, with some containing no MDMA at all, or a mixture of MDMA and other substances (Tanner-Smith, 2006). Pill testing kits have emerged as a harm reduction tool used by individuals to deal with this problem. Kits can identify whether a pill contains MDMA or not, but cannot confirm the quantity present, or whether other substances are present as well. In New Zealand, pill-testing kits are sold by the same alternative lifestyle stores that previously sold BZP party pills¹, continuing their harm reduction marketing angle.

Harm reduction was one of several marketing angles employed by these companies when selling BZP party pills. Party pills were sold as a harm reduction option for illicit substance users who wanted to take responsibility for their own harm management. While choosing BZP party pills reduced the risk of harm from criminal conviction on the occasions it was taken, whether BZP is more or less physically or psychologically harmful than other recreational substances is debated (Aitchison & Hughes, 2006; Baumann et al., 2005; Brennan, et al., 2006; Fantegrossi et al., 2005; Gee, Richardson, Wolfram, Woltersdorf, & Moore, 2005; Theron, Jansen & Miles, 2007; see chapter two for

¹ BZP party pills are no longer sold in these retail outlets, as they were banned during the writing of this thesis.

review). Regardless, it could be argued that the BZP party pill industry exploited the harm reduction movement in order to justify its product, as a genuine harm reduction programme would not have made BZP party pills available to people who were not already substance users, and therefore not at risk of harm. Introducing BZP party pills to these people increased harm. Benzylpiperazine party pill industry proponents argued that they were providing illicit substance users with the opportunity to 'gateway' out of illicit substance use, in much the same way as methadone programmes in New Zealand assist opiate addicts to manage their heroin use (Sheridan, Wheeler, & Walters, 2005). However, methadone is only made available to those who have a genuine need; it is not for sale on a legal open market. Also, the BZP party pill industry failed, or refused, to acknowledge that the potential for BZP party pills to provide a 'gateway' *in*, might be just as great as the potential for illicit users to 'gateway' *out* of illicit substance use.

Studies of gateway effects primarily examine whether there is a causal relationship between cannabis use and the initiation of other illicit drug use (Fergusson, Boden, & Horwood, 2006; Fergusson & Horwood, 2000; Golub & Johnson, 2002; Hall & Lynskey, 2005; Mackesy-Amiti, Fendrich, & Goldstein, 1997; Morral, McCaffrey, & Paddock, 2002; Rebellon & Van Gundy, 2006). The existence of a causal relationship between cannabis use and use of other illicit drugs has been debated, with opponents suggesting that the temporal sequence of drug initiation (where cannabis is used first, then other 'harder' drugs are used) is simply an artifact of substance availability (Hall & Lynskey, 2005), and that there are common predisposing factors for both cannabis and other illicit

substance use (Morral, McCaffrey, & Paddock, 2002). The arguments around availability and common predisposing factors are closely linked. People who might be predisposed to drug use will simply access the most widely available drug first, most often cannabis. Once cannabis use begins, it could be contact with drug dealers who offer other 'harder' drugs, and association within a drug using culture that leads to the escalation to other drug use. Opponents of a causal cannabis gateway hypothesis also point out that not all cannabis users escalate to other drug use, and that if cannabis were the *cause* of 'harder' drug use it would be expected that all cannabis users would progress to other drug use (Hall & Lynskey, 2005).

However, there is growing evidence from large-scale longitudinal studies that a gateway effect exists (Fergusson, Boden, & Horwood, 2006; Fergusson & Horwood, 2000; Hall & Lynskey, 2005). These studies attempt to control for other potential predisposing factors. Even when a multitude of social, environmental, attitudinal, and genetic factors are controlled for there remains a strong and significant relationship between cannabis use and illicit substance use (Fergusson, Boden, & Horwood, 2006; Fergusson & Horwood, 2000; Hall & Lynskey, 2005). Discordant twin studies, which also control for social, environmental, and genetic factors have also demonstrated an association between cannabis use and escalation to other drug use (Lynskey et al., 2003). These longitudinal and twin studies cannot account for increased access to other substances after cannabis initiation due to contact with drug dealers and drug using cultures however. This may be the underlying factor that explains the

association between cannabis other drug use. A gateway effect appears to exist, however the nature of the effect is as yet undetermined.

The existence of a gateway effect for cannabis does not necessarily imply that gateway effects are possible for other substances, like BZP party pills.

However, it has been noted that in geographical areas where cannabis is unavailable, other substances appear to take its place in the temporal sequence of drug initiation (Hall & Lynskey, 2005). It is possible that BZP party pills could act as a gateway into illicit substance use due to their extensive availability, though there has been no test of this proposition to date. Likewise, there is no evidence to suggest that a reverse gateway out of illicit substance use via BZP party pills is possible. Therefore, any claims that BZP party pills reduce substance-related harm by providing a gateway out of illicit substance use are at best anecdotal, and at worst unfounded.

In summary, harm reduction is an approach to drug use that neither condones nor condemns users' behaviour, but is aimed at reducing their risk of harm. Programmes are generally designed and operated by user organizations, and are evidence based. The BZP party pill industry does not condemn illicit substance use, however their marketing material comes very close to condoning it (see chapter three). Although the industry was established by a former illicit substance user, it quickly grew into a commercial profit driven enterprise, and to date, there is no empirical evidence to support the claim that BZP party pills reduced substance related harm.

In the next section I will review risk perception in relation to drug use. An individuals desire to reduce their personal risk of harm, might be dependent on

how they perceive the risks of drug use. How BZP party pill users perceive the risks of BZP and other drug use might impact their motivation to reduce their risk of harm.

Part 3 - Risk perception and drugs

The relationship between perceived risk of drug use and drug taking behaviour is complicated. A simple cause and effect relationship is sometimes assumed suggesting that drug users only use substances because they are ignorant to the associated dangers (as described in Duff, 2003; Gamma, Jerome, Mathias, Liechti, & Sumnall, 2005; Kelly, 2005). Based on this assumption, policy makers work to increase public awareness of the inherent risks associated with drugs, with the intention of preventing uptake and stopping, or at least reducing, levels of drug use (Gamma et al., 2005). These assumptions imply a relationship between the perceived risk of drug use and actual drug using behaviour, where increasing risk perception decreases drug use. Investigations of drug users' risk perception and its impact on rates of drug use have found that these assumptions are not always supported. Gamma et al. (2005) found that ecstasy users were aware of the risks of ecstasy use, and users' perceptions of risk were similar to scientifically recognized risks. Gamma et al. (2005) also found that increased awareness of ecstasy related risks did not impact use behaviour. The authors suggested that risks must have personal significance to the user in order to impact drug use. That is, risks need to be *experienced* rather than *perceived* by the user for use patterns to be influenced. Other research findings support the notion that drug users are aware of the risks involved (Kelly, 2005; Marsch, Bickel, Badger, & Quesnel, 2007; Murphy, Wareing, & Fisk, 2006;

White, Degenhardt, Breen, Bruno, Newman, & Proudfoot, 2006), and harm reduction strategies are often employed by individuals and peer groups to manage these risks (Allott & Redman, 2006; Gamma et al., 2005; Johnston et al., 2006; Murphy, Wareing, & Fisk, 2006; Panagopoulos & Ricciardelli, 2005; Shewan, Dalgarno, & Reith, 2000).

Brewer, Weinstein, Cuite, and Herrington (2004) published a model of risk perception and risk behaviour that accounts for what they call 'protective behaviour'. In the context of drug use as risk behaviour, harm reduction strategies could be considered protective behaviour (See Figure 1.0 page 28). Brewer et al. (2004) tested three hypotheses across two time points. First, the behaviour motivation hypothesis predicts that increased risk perception at time one results in increased use of preventive behaviour at time two. Secondly, the risk reappraisal hypothesis predicts that people who had increased their preventive behaviour at time two will have reduced their perceived risk at time two compared to time one. Finally, the accuracy hypothesis predicts that those engaging in risk behaviour will accurately perceive the risks involved, but this does not imply any causal relationship between perception and behaviour. The accuracy hypothesis was tested by measuring preventive behaviour and risk perception at a given time point, and a negative correlation between preventive behaviour and perception of risk supports the hypothesis. This means that as a drug user employs harm reduction strategies their perceived risk of drug use is diminished. The lack of a causal relationship between risk perception and risk behaviour found in the research reviewed above could be explained by Brewer et al.'s (2004) model. If harm reduction strategies were taken into account as

preventive behaviours when testing for a risk perception/risk behaviour relationship, some causality might exist. That is to say, harm reduction strategies may mediate the relationship between perceived risk of drug use and drug using behaviour. Engagement in harm reduction strategies could remove the need to alter drug use behaviour in terms of frequency, amount or type of drug used, as the risks are managed in other ways. This may have masked a relationship between risk perception and drug using behaviour in previous research.

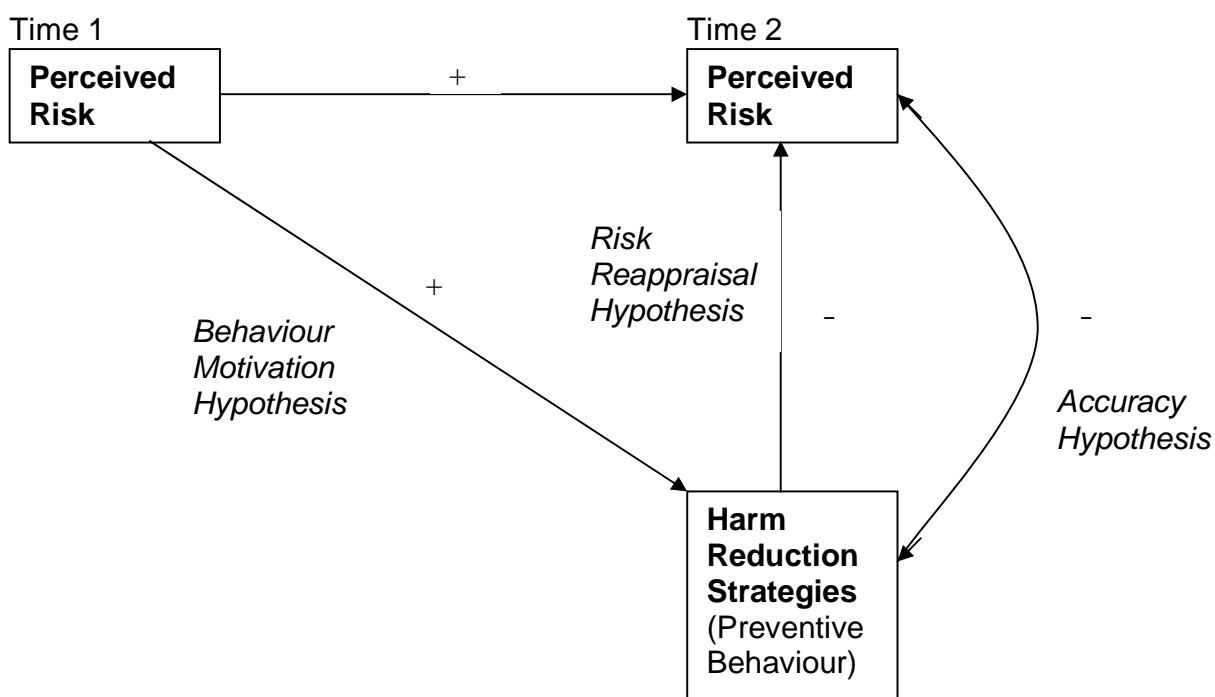


Figure 1.0. Adapted from Brewer et al. (2004). A model of risk perception and risk behaviour applied to recreational drug use.

Another explanation for the absence of a causal relationship between risk perception and drug using behaviour is the role of cognitions to rationalize risk taking, and the failure by some researchers to recognize the two-way relationship

between behaviour and cognition. The relationship between risk perception and risk behaviour is not unidirectional. Gerrard, Gibbons, Benthin, and Hessling (1996) examined how cognitions impact behaviour, and vice versa. The authors found a reciprocal relationship between behaviour and cognition in a three-year longitudinal study of adolescent reckless driving, drinking, and smoking. As levels of risky behaviour increased, so did awareness of the risks involved in engaging in the behaviour. Increased awareness of the risks did not reduce the incidence of the risky behaviour; rather adolescents used cognitive manipulations to rationalize their continued risky behaviour despite awareness of the dangers. The first cognitive manipulation identified by the authors was a process of normalisation where adolescents inflated the perceived prevalence of the risky behaviour among their peers. Normalising risky behaviour in this way made it seem more benign. The second cognitive manipulation used was avoidance - rather than denying their existence, adolescents acknowledged the risks involved in a given behaviour, but chose not to let them influence their behaviour. Gerrard et al. (1996) found that these cognitive manipulations predicted future risk behaviour, and risk behaviour predicted future cognitive manipulations, supporting the existence of a reciprocal relationship between risk behaviour and cognition. Users of BZP party pills and other drugs might also use these cognitive manipulations to rationalize ongoing use of the substance.

Impulsivity has also been examined in relation to risk behaviour. Impulsivity combined with low risk perception is predictive of increased participation in high-risk behaviour (Ryb, Dischinger, Kufera, & Read, 2006). Butler and Montgomery (2004) investigated impulsivity, venturesomeness, and

novelty seeking in recreational drug users. The authors defined impulsivity as risk taking without consideration of the consequences, whereas venturesomeness is defined as engagement in a risky behaviour for the thrill of it, while fully aware of the risks. Butler and Montgomery (2004) found that compared to non-users, poly-drug users had elevated scores for impulsivity, venturesomeness, and novelty seeking. Whether these characteristics existed within poly-drug users prior to drug use or whether drug use causes these traits is debated. A causal relationship in either direction is yet to be established. This debate has implications for the current thesis. Benzylpiperazine party pill users might have pre-existing characteristics like those described by Butler and Montgomery (2004) that makes them more susceptible to risky behaviours including further illicit substance use. Alternatively, BZP party pill use could impact users personality characteristics, making them more impulsive, venturesome, and novelty seeking, in turn motivating further illicit substance use.

Socio-cultural perspectives of risk challenge the realist perspective that risk is a quantifiable phenomenon, to be measured by objective experts. Instead, a cultural relativist position emphasizes the importance of considering lay assessments of risk, where social, cultural, and political contexts from which risks are constructed, are of primary importance (Hunt, Evans, & Kares, 2007; Joffe, 2003; Jones, 2004). Hunt et al. (2007) conducted a qualitative study examining how recreational drug users construct notions of risk and how they manage them. The authors found that for drug users, drugs themselves were not solely responsible for the risks associated with drug use. Risks of drug use were heavily dependent on context. The environment in which a drug is taken, the

physical and emotional state of the user, the type of drug used, how the drug is used, and what safety precautions are taken, all influence how risk is constructed by drug users. Users constructed risk in a relativistic way, where the dangers of one drug were compared to other drugs, and a hierarchy of drugs based on perceived addictive potential was constructed. Users also compared the risk of drug use to the risks of other daily activities that could cause harm, such as driving or walking in smog. Users engaged in a cost-benefit analysis when assessing the risks of drug use. Expert analyses of risk fail to acknowledge the benefits of drug use, however in Hunt et al.'s (2007) study, users negotiated a balance between risk and pleasure. Users managed the risks through harm reduction while enhancing the pleasure of drug use. Risk and pleasure were constantly being renegotiated, for some users the risks overtook the benefits, and those users chose to stop taking drugs. If BZP party pill users take a relativist approach to assessing risk, it is possible that users considered the legal status of BZP beneficial compared to illegal drugs. BZP users might weigh up other costs and benefits of BZP use in similar ways to illicit users in Hunt et al.'s (2007) study. As there is no existing literature examining how the costs and benefits of BZP use are weighed up by party pill users, this will be the focus in study 3B, chapter five.

Shewan, Dalgarno, and Reith (2000) also emphasized the importance of context in laypersons assessments of risk around drug use. Drug, set, and setting all contributed to the cost-benefit analysis of risk. The drug taken, the mind-set of the user, and the environmental and social setting of drug use were all taken into account when analyzing the risks of drug use. Set and setting are

likely to be important to BZP party pills users as they assess the risks of using BZP and other substances on each occasion.

Duff (2003) discusses the disjunction between expert and lay assessments of risk. Unrealistic expert portrayals of risk leave lay drug users skeptical of many health campaign messages. He explains that when expert accounts of risk are inconsistent with user's experiences, it undermines the effectiveness of education programmes and harm reduction campaigns. Duff (2003) suggests that experts need to acknowledge the benefits of drug use and conduct cost-*benefit* analyses of risk as lay people do in order to communicate a more balanced message that lay drug users will hear and trust.

In summary, drug users are aware of the risks they take when using drugs, and their perception of the risks does not appear to have a direct relationship to their drug using behaviour. Several factors may influence how risk perception and drug using behaviour impact each other. The use of harm reduction strategies might mediate a relationship between perception and behaviour, as management of risk removes or reduces the need to avoid drug use. Cognitive manipulations that normalise risky behaviour and help drug users to avoid concerns about drug use could also explain why drug using behaviour is unaffected by risk perception in many studies. Traits within the drug user such as impulsivity and venturesomeness might also explain why risks are taken despite awareness of potential consequences. Each of these explanations might be applicable to BZP party pill users risk perception and behaviour. Socio-cultural perspectives of risk emphasize layperson assessments of risk, where contexts of drug use are just as risk laden as the drugs themselves.

Benzylpiperazine users might consider the context of their BZP use when they assess the risks associated with BZP use. Each perspective provides important insights into how risk is evaluated and measured by both experts and users, and the complicated relationship between risk and behaviour. These theories could be applied to perceptions of risk and BZP using behaviour. Benzylpiperazine party pill users might engage in harm reduction strategies to manage the risks of BZP use, so a direct risk by use relationship might not be evident. This will be examined in study 2B. Benzylpiperazine users might employ cognitive manipulations such as exaggerating the prevalence of BZP use, acknowledging but ignoring the risks of use and not allowing the risks to influence their BZP using behaviour, to normalise what they perceive to be risky behaviour. These cognitive manipulations are examined in study 3B. The benefits of BZP use might be emphasised over the risks. This will be examined in detail in study 3B.

Chapter Two

Benzylpiperazine Party pills and New Zealand

Overview

This chapter is a detailed review of BZP, and BZP party pills in the New Zealand context. I describe what BZP is, and how the substance came to be a legal recreational drug in New Zealand. This includes the development of an industry around BZP party pills, and the tension between the industry, public opinion and media, and government, that ultimately culminated in the criminalization of BZP manufacture, supply and use. Public statements from representatives of the BZP party pill industry have tended to focus the party pill debate around claims of BZP as a harm reduction tool, and potential negative consequences of a BZP ban. I will describe these claims and the rationale behind them, as they form the basis of my research questions. In the last section of this chapter I review local and international BZP research, much of which focuses on the physiological effects of BZP. I review two local studies on the social impact of BZP party pills, though neither test claims made by the BZP party pill industry, and I conclude this chapter with my research questions, which stem from the debate around the legal status of BZP party pills in New Zealand.

Benzylpiperazine (BZP)

Benzylpiperazine (BZP) is a stimulant drug originally synthesized in 1944 as an agricultural worming agent (Campbell, Cline, Evans, Lloyd, & Peck, 1973). It was briefly investigated as a potential anti-depressant medication, but in the last 12 years it has been most commonly used as a recreational drug (US Department of Justice, 2002) due its amphetamine-like effects (Campbell et al.

1973). Animal studies have indicated that BZP increases both dopamine and serotonin activity in the brain in similar ways to amphetamine type stimulants, though with less potency (Campbell et al., 1973; Brennan, et al., 2006). Benzylpiperazine is about one tenth the potency of dexamphetamine and methamphetamine (Campbell et al., 1973; Brennan, et al., 2006, respectively). Sometimes BZP and TFMPP, a hallucinogenic substance, are sold in combination. Combining the two substances mimics the psychoactive effects of methylenedioxymethamphetamine (MDMA), also known as ecstasy (Baumann et al., 2005). When BZP/TFMPP combinations are administered to rats, the neurochemical effects are similar to those of MDMA, increasing release of both dopamine and serotonin. According to Baumann et al. (2005) TFMPP is largely ineffective without the co-administration of a stimulant. This is not dose-dependent, it is simply ineffective on its own.

The United States (US) Department of Justice first reported that BZP was being used recreationally in California in 1996. It quickly spread across the states as a popular drug at dance parties or raves. The Drug Enforcement Administration (DEA) in the US temporarily placed BZP and TFMPP into schedule one of their Controlled Substances Act in 2002 (US Department of Justice, 2002). They cited increased levels of abuse across America, and the chemicals association with, and similarity to, MDMA or ecstasy as the primary justifications for scheduling the substances. They also referred to the death of a young female in Switzerland who had co-ingested BZP and ecstasy. Benzylpiperazine was permanently placed into schedule one of the Controlled Substances Act in the US in 2004, and remains an illegal substance there (US

Department of Justice, 2004). Benzylpiperazine is also illegal in Australia, Japan, Denmark, and Sweden (Gee & Fountain, 2007). Benzylpiperazine is so far not controlled in other countries.

BZP party pills in New Zealand

What follows is based on public record, media reports, and limited research on BZP. The term 'party pill' encompasses all piperazine-based products sold as 'herbal highs', 'legal highs', or 'social tonics'. The BZP party pill industry established itself in New Zealand in 2000. Initially, pills containing 50 to 120mgs of BZP were most commonly sold in packs of two to four pills and packets typically recommended a dose of two pills per occasion. Directions for use found on packaging and advertising material usually advise about dosage and not mixing with alcohol and illicit substances. However industry 'recommended doses' were not based on any substantiated empirical evidence around effect or safety. Some also make recommendations about hydration, food intake, contraindications with pregnancy or medical conditions, and mixing with prescription medications. Pills usually cost around \$10 each and were mainly sold out of convenience stores, liquor outlets, and a few specialty stores. Benzylpiperazine party pills rapidly gained popularity and sales steadily increased (Johnstone, Lea, Brennan, Schenk, Kennedy, & Fitzmaurice, 2007). Several party pill specialist companies established themselves in New Zealand and specialty party pill outlets opened across the country. Stores such as Cosmic Corner and Herbal Heaven marketed their own competing brands of party pill. Party pills were sold under brand names such as 'Charge', 'Euphoria', 'Frenzy', and 'The Good Stuff'. Benzylpiperazine party pills were also available

over the internet, where companies presented party pill menus offering different psychoactive effects from pills containing different combinations of piperazines, (predominantly BZP and TFMPP) vitamins, and minerals. As competition increased, so did the dosages available for sale. The amount of active ingredient in a party pill became a marketing tool, and by 2007 it was possible to buy pure BZP powder (commonly called 'Hummer') by the gram from some outlets. Provision of pure BZP in powdered form raises issues of safety around methods of consumption. Traditionally, illicit substances sold in powdered form are intended to be snorted or 'cooked up' and delivered intravenously. Supply of BZP in powdered form enables users to consume the product in these more harmful ways. Elsewhere bulk packs of 30 to 40 pills could also be purchased at discounted rates. The primary concerns around bulk supply of BZP party pills are about control over who uses BZP and how much is taken. When an individual purchases 40 pills, they are able to on-sell them or distribute them to their friends. This increases BZP party pill availability to under-age users. Bulk supplies also increase the risk of overdose. Marketing material drew direct comparisons between the party pill product and illicit substances, and targeted experienced drug users. Marketing for brands such as 'E party pills', 'Ice diamonds' and 'X' likened the products to the illicit substances their names suggested they were mimicking, ecstasy (commonly known as 'E' or 'X') and methamphetamine (commonly known as 'P' or 'Ice'). The marketing material on the internet and in pamphlets distributed from retailers' premises often assumed users had experience with illicit substances. Advertising for 'Fast Lane' party pills for example reads *"Been there? Done that? Tried this? Tried that? Well ya*

haven't tried (sic) these party pills. Get ready for the ride of your life!" Viewed from outside, BZP party pills were being marketed not just as an alternative to illicit substances, but as part of an illicit drug taking culture.

Users of BZP party pills

Benzylpiperazine party pill users tend to be young adults who use party pills as a social lubricant (Wilkins, Girling, Sweetsur, Huckle, & Huakau, 2006). A major study of BZP party pill use in New Zealand found that one in five (20.3%) New Zealanders had tried party pills, while one in seven (15.3%) had used party pills in the previous 12 months (Wilkins, Girling, Sweetsur, Huckle, & Huakau, 2006). Party pills were most popular among the 18 – 24 year old age group. A third (33.9%) of 18 – 19 year olds had used party pills in the preceding year, and 38% of 20 – 24 year olds had done so. According to Wilkins, Girling, Sweetsur, Huckle, and Huakau (2006), party pills were most commonly used in public places such as concerts, on the street, at the beach or park, in pubs, bars or at dance parties. According to the results of this study, BZP party pills are used by young New Zealanders to enhance their social experiences in much the same way as illicit substances and alcohol are used.

The party pill industry in New Zealand

Since its inception in 2000, the party pill industry has grown significantly. The Social Tonics Association of New Zealand (STANZ) estimates that two to three million servings of party pills were sold in 2004. In 2007 five million servings of BZP party pills were consumed in New Zealand, and over 20 million party pills have been consumed since the industry began (Bowden, 2007a, Bowden 2007b). The party pill industry has promoted itself as reducing

substance related harm by providing illicit substance users with a safe, legal alternative to illicit substances (Bowden, 2007a). One BZP-based pill called 'Stop P' claimed to assist methamphetamine addicts quit using by providing them with an alternative substance to reduce their cravings. The manufacturers have only been able to supply anecdotal evidence of the efficacy of 'Stop P' (Stargate International, 2006). Other BZP party pills are marketed as replacements for amphetamine-type drugs such as 'speed' and 'ecstasy' on occasions where the substance is used recreationally. However, as sales of BZP party pills have boomed, there has been no observable reduction in use of the illicit substances they are supposed to replace (Gee & Fountain, 2007; Theron, Jansen, & Miles, 2007; Wilkins, Sweetser, & Casswell, 2006).

The legal status of BZP party pills was debated politically and publicly, with the media widely reporting calls for the substance to be banned (see review below). This thesis will focus on the debate over whether to ban or not to ban BZP party pills, though it is acknowledged that regulation of BZP was an alternative option. This option will be discussed in light of the findings of this research in the general discussion section (chapter six). In response to calls for a ban, and in an attempt to legitimize the industries harm minimization claims about BZP party pills, the Social Tonics Association of New Zealand (STANZ) was established in 2003 by Matt Bowden, the inventor of BZP party pills in New Zealand. Bowden also founded the first BZP party pill company Stargate International in 1999, and was the first to manufacture, market, and sell BZP as a legal recreational party drug. Benzylpiperazine party pill retailers were invited to join STANZ and adhere to its voluntary code of practice for the manufacture,

labeling, distribution, and marketing of social tonics or party pills. This code of practice was developed by STANZ in response to public concern about the availability of this unregulated drug. As the public and some MPs started to call for BZP to be banned, the STANZ code of practice was intended to reassure the public and the government that the industry was acting responsibly. It stipulated that members should only sell BZP party pills to people over 18 years of age, and pills should contain a maximum of 200mgs of BZP with no more than 600mgs of BZP per packet. It also suggested members follow Good Manufacturing Practices to ensure the quality of party pill ingredients and accuracy of labeling. Members were also asked to market and display their products in a socially responsible manner (Bowden, 2007a). However, STANZ membership was voluntary, and not all retailers followed the code of practice, rendering it redundant. Only when some of the articles in the code of practice became law in 2005, were retailers forced to adhere to a minimum age for purchase and restricted marketing practices (see 'BZP party pills and the Law in New Zealand' below).

Bowden and STANZ represented BZP party pill retailers from 2004 till 2007 in Select Committee hearings on the Misuse of Drugs Amendment Bills, which initially aimed to regulate, but then proposed to ban BZP entirely. STANZ made numerous submissions and Bowden appeared in front of several Select Committee hearings to argue for ongoing regulation of the BZP party pill industry in the name of harm reduction. As well as appearing at Select Committee, Bowden became the industry spokesperson in the media. He issued press releases and offered comment on any BZP party pill related story on behalf of

STANZ. In his media appearances, and despite a dearth of evidence, he claimed that BZP party pill users were substituting illicit substances such as methamphetamine ('P') and MDMA (ecstasy) for BZP party pills, and this was literally "saving lives" (Bowden, 2007b, p.1). Bowden stated that party pills were "succeeding in keeping hundreds of thousands of kiwis away from dangerous illegal drugs" (Bowden, 2007b, p.1). It was also suggested that banning BZP would increase substance related harm as BZP party pill users would turn to illicit substances such as 'P' if BZP was no longer legally available (Barnett, 2007; Bowden, 2005, 2007b; Drought, 2007; New Zealand Press Association, 2007; Thompson, 2006). Bowden also opposed banning BZP party pills on the grounds that he believed it would create a black market for the pills and hand control of the industry over to gangs (Crewdson, 2007; Hamilton, 2006; New Zealand Herald, 2006; New Zealand Press Association, 2006; Thompson, 2006). Bowden used the media to sell his harm reduction message in an attempt to sway public opinion in favour of maintaining a legal BZP party pill marketplace. However, media attention to BZP party pills has predominantly been negative.

BZP party pills in the media

The New Zealand media have covered the BZP party pill issue extensively. Stories have generally focused on the perceived danger of BZP party pills and whether or not they should be banned in New Zealand. Typical headlines read "Playing it 'safe' scars party pill user for life", "Dangerous taste for that party buzz", and "Ministers consider ban on BZP party pills" (The Dominion Post, 2007; Chalmers, 2007; Chalmers, 2006). Stories that attracted the most attention were human-interest stories where individuals had suffered severe side

effects from taking BZP party pills. The story of Ben Rodden's apparent BZP overdose was covered by all of New Zealand's major television and print news media. Rodden was placed into an induced coma in Christchurch hospital after ingesting a BZP party pill called Torque (Crewdson, 2007). Toxicology results later found he also had caffeine and ecstasy in his system, though the media continued to report Rodden's overdose as caused by BZP.

The media was also quick to cover research findings as they were released. Journalists focused on the potential for harm associated with BZP party pills. When a study by Gee, Richardson, Woltersdorf, and Moore (2005) found increasing numbers of BZP party pill users presenting at Christchurch hospitals emergency department, the media widely reported that BZP party pill users were suffering "severe" reactions to the pills, including seizures (for example: Brogden, 2005; Reiber, 2005; Rankin, 2006). Gee et al. (2005) did find that some BZP party pill users seized after use, however the most common side effects were palpitations, vomiting, and agitation. It seems that the media tended to exaggerate the harms associated with BZP party pills. Another study of emergency department presentations from Auckland hospital (Theron, Jansen, & Miles, 2007) found that only a small proportion of over dose presentations involved BZP party pills and those that did involved only minor reactions, but the media did not report on this study. The media's emphasis on the perceived dangers of BZP party pills fuelled public pressure to ban BZP. Associate Minister of Health Hon Jim Anderton responded to the pressure by funding several research projects to establish an evidence base from which to legislate. These studies are reviewed in this chapter, from page 46.

BZP party pills and the law in New Zealand

Benzylpiperazine was sold as an uncontrolled substance in New Zealand until 2005, and BZP party pills could be sold to anyone, regardless of age. However, in June 2005 the Misuse of Drugs Amendment Bill (No. 3) was passed, creating a new category for classification of substances. Three existing categories (A, B, and C) classify illegal substances, supposedly on the basis of potential for harm (Misuse of Drugs Act, 1975). In New Zealand cannabis is a class C substance, incurring lesser legal penalties than class A substances such as methamphetamine and opiates (Misuse of Drugs Act, 1975).

Benzylpiperazine was the first substance to be placed in a new category known as Class D for restricted substances. Rather than being controlled, restricted substances remain legal but with regulated sale, supply, marketing, and manufacture. In the case of BZP, the minimum age for purchase became 18 years, free-of-charge distribution was made illegal, and advertising was restricted in much the same way as tobacco (Misuse of Drugs Amendment Bill (No 3), 2005). The minister did not, however, go so far as to enforce a manufacturing code of practice or restrict sales venues such as removing them from sale at dairies and liquor outlets. The minister could also have chosen to enforce labeling standards but did not. So when the Misuse of Drugs Amendment Act 2005 was passed, the only restrictions applied to BZP party pills were a minimum age of purchase, no free-of-charge distribution, and limited advertising.

The passing of the Misuse of Drugs Amendment Act 2005 did nothing to curb young New Zealanders appetite for BZP party pills, and consumption continued to increase (Bowden, 2007a). With classification of BZP as a Class D

substance appearing to have no impact on levels of party pill-use or the negative outcomes associated with them, public concern in the media (Chalmers, A., 2007; Crewdson, P., 2007; Hamilton, J., 2006; New Zealand Press Association, 2007; New Zealand Press Association, 2006; Rankin, J., 2006; The Dominion Post, 2007) over this substance did not diminish. Pressure to ban BZP continued, and Otago National Party MP Jacqui Dean circulated a petition around the county calling for an immediate ban. The petition was presented to parliament with 7500 signatures in March 2006. It was referred to the health select committee and was considered with other submissions during the Misuse of Drug Amendment bill select committee hearing.

By the end of 2006 the Expert Advisory Committee on Drugs (EACD) recommended to the Associate Minister of Health, Hon Jim Anderton, that BZP be removed from the restricted substance schedule and classified a Class C1 controlled substance under the Misuse of Drugs Act 1975 (Bloomfield, 2006). Benzylpiperazine party pills would then be illegal, with the same legal status as cannabis. This recommendation was made based on emerging research evidence of the prevalence of use and harms associated with BZP use (see review, next page). The EACD had concluded that BZP use posed a moderate risk of harm (Bloomfield, 2007). In January 2007 the Associate Minister of Health called for submissions from relevant parties such as manufacturers, retailers, consumers, researchers, health professionals and agencies to comment on the proposed re-classification of BZP (Allen and Clarke Policy and Regulatory Specialists Limited, 2007). The Health Select Committee considered submissions before the bill was put before parliament. On its third reading on 13

March 2008 the bill was passed 109 votes to 11, making BZP and its derivatives illegal from 1 April 2008 (Hansard, 2008). Bowden (2007b) predicted that such an outcome would result in “a swing back to illegal drugs like P.” (p.1) and that “people will die as a result.” (p.1). Regardless, manufacture, supply, import and export of BZP were banned from 1 April 2008. However a six-month amnesty for possession of less than 5 grams of BZP or 100 BZP pills allowed users to consume or dispose of any remaining BZP party pills. Many retailers exploited the six-month amnesty and held stock clearance sales in the days before the ban. Some sold individual un-packaged pills for \$1.00 each. When the amnesty expires on 1 September 2008, possession, supply, manufacture, import and export of BZP will carry the same penalties as other class C substances, such as cannabis. Conviction for possession of a class C drug carries a maximum sentence of three months imprisonment and/or a maximum fine of \$500, while conviction for supply of a class C drug carries a maximum sentence of eight years imprisonment (Misuse of Drugs Act, 1975). Possession of more than five grams or 100 pills of BZP constitutes possession with intent to supply under the Misuse of Drugs (Classification of BZP) Amendment Bill 2008.

BZP research review

Though it has existed since the 1940's, BZP is a relatively new recreationally used substance and until recently little research existed on the epidemiology, biological, psychological, and social effects of its use. This review considers and discusses what is already known about BZP.

Benzylpiperazine might be used instead of amphetamine type stimulants such as dexamphetamine, methamphetamine, or MDMA. Benzylpiperazine

affects human physiology, behaviour, and psychology in a similar way to amphetamines which are central nervous system stimulants. Bye, Munro-Faure, Peck, and Young (1973) and Campbell, Cline, Evans, Lloyd, and Peck (1973) both compared the effects of BZP to dexamphetamine in humans. Bye et al. (1973) compared the effects of BZP and dexamphetamine on performance tests and physiology in humans. In a double blind experiment, varying doses of BZP and dexamphetamine, and a control substance were administered to participants orally before they were asked to complete several performance tests at various stages of the drugs action. Participant's heart rate and blood pressure were also taken at intervals throughout the experiment, and their subjective experiences of the effects of each substance were recorded.

An auditory vigilance test was sensitive to the effects of both drugs. Both BZP and dexamphetamine prevented the decrement in performance over time that was evident in the control condition. Only the two highest doses of BZP (100mgs) and dexamphetamine (7.5mgs) produced subjective stimulant effects for the participants. Bye et al. (1973) also reported that both active drugs significantly increased participant's heart rates, and systolic blood pressure was raised for both drugs at doses of 2.5 and 7.5mgs. Taking together the results of the auditory vigilance tests and the effect on the cardiovascular and central nervous system, the authors concluded that BZP and dexamphetamine produce similar effects in humans. The similarity of effect between BZP and dexamphetamine may contribute to the popularity of BZP party pills among recreational drug users in New Zealand.

The subjective experience of BZP use is similar to that of dexamphetamine use (Campbell et al., 1973), suggesting that it could be used in similar ways. Campbell et al. (1973) also compared the effects of BZP and dexamphetamine. The authors tested the subjective, behavioural, and autonomic effects of BZP, dexamphetamine, and a control substance on 18 former amphetamine addicts under double-blind conditions. Each participant was given the substances on separate occasions at least a week apart. Participant's heart rate and blood pressure were measured before, and at several time intervals after, oral ingestion of the substances. A psychiatric rating scale designed by the authors measured excitation and depression of several factors, including motor activity, aggressiveness, socialization, and attention, after ingestion of each substance. Participants also gave subjective ratings of the substances effects, and a physician recorded observed behavioural changes.

In almost all Campbell et al.'s (1973) tests, BZP and dexamphetamine caused significantly different effects to the control substance, but were indistinguishable from each other. Benzylpiperazine and dexamphetamine caused increased blood pressure and heart rate, and elevated excitation scores on the psychiatric rating scale. In each of these tests there were no significant differences between BZP and dexamphetamine. Participants could not distinguish between BZP and dexamphetamine when asked to subjectively evaluate the effects, and also reportedly enjoyed the effects of both substances equally. The similar effects of BZP and dexamphetamine were achieved with a 100mg dose of BZP and a 10mg dose of dexamphetamine, indicating that BZP has a potency around one tenth that of dexamphetamine. The subjective and

physiological similarities between BZP and dexamphetamine indicate that each could substitute for the other. A 'gateway' effect might exist in either direction. BZP could be a tool for reducing substance related harm, providing amphetamine users with a 'gateway' *out* of amphetamine use. Conversely, BZP could prime users for amphetamine use and provide a 'gateway' *in* to illicit substance use.

Other research has reported that BZP is similar to other illicit substances such as MDMA (Baumann et al., 2005) and methamphetamine (Brennan et al., 2006), and could potentially create vulnerability to abuse of these substances (Brennan et al., 2006). Animal research has investigated BZP in relation to other illicit substances. Brennan et al. (2006) found that BZP and methamphetamine produce similar behavioural and neurochemical effects in rats. The authors reported that rats dosed with BZP became sensitized to methamphetamine, and vice-versa, concluding that BZP use could increase susceptibility to other stimulant abuse. Another rat study by Baumann et al. (2005) found that BZP/TFMPP combinations mimic the effects of MDMA. Other animal studies have demonstrated BZP's abuse potential (Fantegrossi, Winger, Woods, Woolverton, & Coop, 2005) and increased risk of mental health problems, such as anxiety (Aitchison & Hughes, 2006). A high risk of overdose compared to other substances has also been established. When BZP and TFMPP were administered in combination, seizures were induced in rats with just three times the dose required to stimulate neurochemical activity, meaning BZP/TFMPP combinations have a "narrow window of safety" (Baumann et al., 2005, p.558). The human and animal studies reviewed so far tell us that BZP is similar to

several illicit substances, and brings with it many of the same risks of abuse and harm.

There is a risk of overdose whenever substances are used recreationally, and this risk is also present when BZP is used. Several emergency department studies have evaluated the outcomes of BZP overdose. One study at Christchurch hospital found that patients presenting with mild to moderate adverse reactions to BZP frequently experienced insomnia, anxiety, nausea, vomiting, palpitations, dystonia, and urinary problems (Gee et al., 2005). Fifteen of the 61 patients had severe adverse reactions and experienced grand mal seizures, two of them life-threatening (Gee et al., 2005). At the same time, a similar study at Auckland Hospital found that BZP overdoses constituted only a small percentage of overall substance related overdose presentations. Further, none of the BZP overdoses resulted in severe reactions like those seen in Christchurch (Theron, Jansen & Miles, 2007). The differences observed between Auckland and Christchurch hospitals may be indicative of differences in the BZP retail markets between the cities. Retail outlets in Christchurch stocked party pills with higher doses of BZP than those available in Auckland at the time of those studies (Theron, Jansen & Miles, 2007). Co-ingestion of other substances, primarily alcohol, is a factor in most BZP related hospital presentations. In case reports (e.g. Alansari & Hamilton, 2006; Austin & Monasterio, 2004) and the hospital studies, including one at Waikato hospital (Nicholson, 2006) the majority of patients had co-ingested at least one other substance, and the average dose taken was up to twice that recommended. Co-ingestion of other drugs is warned against, and a recommended dose is on most

BZP party pill labels. The hospital studies not only evidence the dangers of co-ingestion, but also show that users may disregard them in spite of these warnings. The fact that most hospital admissions involved co-ingestion of BZP and other substances highlights that the primary health issue for BZP is caused by users failing to follow directions for safe use, rather than BZP itself. Many of the issues discussed around risk perception in chapter one are relevant here. The apparent disregard for harm reduction strategies and directions for safe use could be because the legal status of the pills gives a false assurance of safety. This is examined in detail in studies 2B, 3A and 3B.

The studies reviewed so far tell us about the physiological effects of BZP, however little research has been done to understand how and why BZP party pill users take party pills. The social impact of BZP party pill use has been examined in two studies in New Zealand (Butler & Sheridan, 2007; Wilkins, Girling, Sweetsur, Huckle, & Huakau, 2006). Butler and Sheridan (2007) conducted qualitative interviews with 58 young BZP party pill users and asked them about their BZP party pill use. As well as using BZP party pills when socializing in bars, nightclubs, and at parties, participants reported that BZP party pills helped them with work and study. Many participants reported consuming more than the recommended dose of BZP party pills. The authors reported that the majority of participants used other substances with BZP party pills, predominantly alcohol, but also ecstasy and cannabis. Participants primarily reported that they used BZP party pills for their stimulant and social effects. Some participants said they used BZP party pills as an alternative to other substances, such as alcohol and ecstasy. Benzylpiperazine party pills were chosen over alcohol for various

reasons. Some participants preferred the effects of BZP and felt they remained in control of themselves more than if they drank alcohol. Some used BZP party pills so they could still drive home after their evening out. BZP was used instead of ecstasy when cost and availability of ecstasy was a problem. Participants were aware of the safety issues around BZP party pill use and reported that they knew about sticking to recommended dosages, staying hydrated, and not combining with other substances. This knowledge did not translate into safe using behaviour however, as most users also reported co-ingestion of other substances, and taking more than the recommended doses.

Wilkins, Girling, Sweetsur, Huckle, and Huakau's (2006) quantitative study examined many social aspects of BZP party pill use, including prevalence, poly-drug use, and gateway effects. This large-scale study sampled 2,010 New Zealand households at random. Twenty percent of the sample had tried BZP party pills in the past, and 15% had done so in the previous year. Eighteen to 24 year olds were the heaviest users of BZP party pills. Again, the majority of BZP party pill users co-ingested BZP with other substances, primarily alcohol and cannabis. The majority of BZP party pill users interviewed also used illegal substances, and used BZP party pills to either enhance the effects of illegal drugs, or instead of illegal drugs when they were not available. Young BZP party pill users appear to use BZP as part of a varied recreational drug habit.

Summary

Benzylpiperazine party pills have become a popular recreationally used substance for young New Zealanders. Since the year 2000 BZP party pill consumption has steadily increased, as has the debate around its legal status.

The BZP party pill industry would have New Zealanders believe they were providing illicit substance users with a safe, legal alternative to illicit drugs. The industry claimed they were responsible for reducing substance related harm in New Zealand, despite no significant reduction in rates of illicit substance use as BZP consumption increased. As public pressure to ban BZP increased, the party pill industry argued that banning BZP would cause a swing back to 'P' use, and hand control of a BZP black market over to the gangs (Bowden, 2007a). Despite these arguments, the New Zealand government banned BZP in early 2008, based on what the government interpreted as research evidence of harm, including the studies reviewed here. It should be acknowledged that many of these studies are problematic, in that they set out to detect harm and do not acknowledge potential benefits of BZP or a legal BZP marketplace.

Human and animal studies have demonstrated that BZP has similar behavioural, physiological, and subjective effects to some illicit substances, especially amphetamine type stimulants including methamphetamine and MDMA (Aitchison & Hughes, 2006; Brennan et al., 2006; Baumann et al., 2005; Bye et al., 1973; Campbell et al., 1973; Fantegrossi, 2005). The similarity between BZP and these substances means they are likely to be used interchangeably by recreational drug users, and perhaps come with similar risks of harm. In hospital studies, patients presenting with complications after BZP party pill use tend to have co-ingested BZP with other substances, most frequently alcohol. Co-ingestion and overdose are the most common factors when patients present with adverse reactions to BZP in the hospital studies reviewed (Alansari & Hamilton, 2006; Austin & Monasterio, 2004; Gee et al., 2005; Theron, Jansen & Miles,

2007). Co-ingestion of BZP and other substances rather than BZP itself is the primary cause of overdose and health harms.

Both social BZP party pill studies give a snapshot of BZP party pill users and BZP party pill use (Butler & Sheridan, 2007; Wilkins, Girling, Sweetsur, Huckle, & Huakau, 2006). They show that BZP party pill users are generally young people who use them as a social aid in much the same way as alcohol and illegal drugs. Neither study can tell us what impact BZP party pills have on illicit substance use; however they do indicate that BZP party pills tend to be used by people who also use illegal drugs. These studies do not give an indication of the impact a ban of BZP might have on BZP users.

The aim of this research is to answer these questions empirically, and to examine how BZP party pills are perceived in terms of risk. The first study (chapter three) sets the scene by examining how BZP fits into recreational drug using culture by analyzing how BZP party pills are marketed. The second study (chapter four) will establish whether BZP party pills reduced substance related harm by reducing illicit substance use. Study two will also examine the relationship between risk perception and drug-taking behaviour for BZP party pills, and other recreationally used drugs. The third study (chapter five) will investigate what the potential outcomes of a BZP ban might be for regular BZP users, and how they construct and assess risk around BZP use.

Research Questions

1. How are BZP party pills marketed in relation to illicit substances?

- 2a. Do BZP party pills reduce substance related harm by reducing illicit substance use?
- 2b. What is the relationship between perceived risk and use behaviour for BZP and other recreational substances?
- 3a. What are the potential outcomes for regular BZP party pill users if BZP is banned?
- 3b. How do regular BZP users construct and assess risk around BZP use?

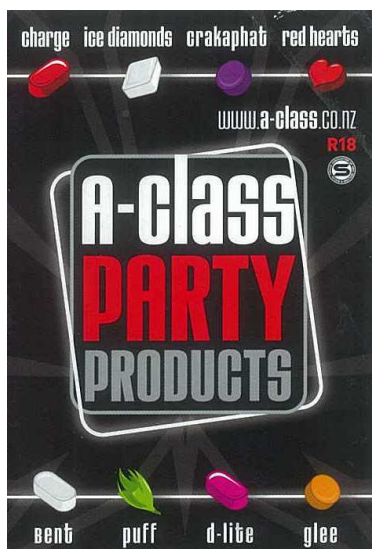
Chapter Three

Study 1: How are BZP party pills marketed in relation to illicit substances?

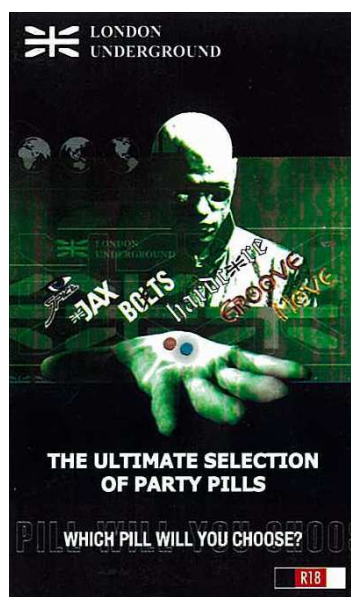
Introduction

As described in the previous chapter, the Misuse of Drugs Amendment Bill (No 3) (2005) imposed heavy restrictions on advertising of BZP party pills. This led to increased use of internet-based and counter-top pamphlet advertising. Counter-top pamphlets were usually small business card sized foldout catalogues of the various kinds of BZP party pill available from a particular manufacturer. They were generally found on the counter tops of dairies (convenience stores), liquor outlets, and specialty party pills stores. Many directed the reader to the website of the manufacturer, where the products could be purchased online. Party pill websites offered more information about the products, and the opportunity to purchase BZP party pills at discounted rates. Exemplars one and two below show the covers of two pamphlets distributed by popular BZP party pill companies. These advertisements represent part of a dialogue with users and potential users, and as such can tell us how promoters construe their products and their target audience.

For this reason, the contents of these and other pamphlets were qualitatively analyzed in study one to give the reader an idea of how BZP party pills were marketed. It also allows us to assess whether the harm reduction message pushed through the media by representatives of the BZP party pill industry (Bowden 2005; Bowden, 2007a, 2007b), is evident in the marketing of BZP party pills.



Exemplar one. Cover page from advertising pamphlet for 'A-Class Party Products'



Exemplar two. Cover page from advertising pamphlet for 'London Underground'

Method

Corpus. Counter top pamphlets advertising BZP party pills were collected from dairies (convenience stores), liquor outlets, and specialty party pill stores in and around Wellington city between August 2005 and December 2007. Selection of advertisements was systematic in that the aim was to include every advertisement for BZP party pill products publicly available during that time period. To achieve this, retail outlets selling BZP party pills were visited regularly and new advertising material was collected, and websites were regularly searched for new advertisements which were printed off. Web based advertisements were downloaded and printed from the websites listed below between January 2006 and March 2008. Fifty one advertisements for a total of

43 BZP party pill products were included in the analysis. Twenty one advertisements were from counter-top pamphlets and 30 were from websites. Eight products were advertised in both the pamphlets and the internet.

www.party-pills.net.nz

www.r18pills.com

www.nzparty-pills.co.nz

www.mindfuel.co.nz

www.legalpartydrugs.com

Analytic approach and procedure

Only advertisements for party pill products containing BZP were analyzed, many also contained TFMPP. A thematic analysis was conducted as described by Braun and Clarke (2006). Thematic analysis is a method of qualitative analysis where data is coded and sorted into themes. A theme captures something important in the data, and represents a pattern of responding or meaning in the dataset. Themes are not based on prevalence, but on their importance to the research question being investigated. Thematic analysis is a highly flexible form of qualitative analysis that allows identification of patterns in a data set. Researchers play an active role in the analysis process, looking for themes in the data as they read and re-read, check and confirm the existence of themes by applying codes to the data items (Braun & Clarke, 2006). Unlike many other forms of qualitative analysis, thematic analysis is not restricted by a specific theory, and can be applied to many different theories. Researchers can conduct thematic analysis from a chosen perspective, searching for pre-identified theoretically driven themes, or allow the data to drive the thematic analysis.

Braun and Clarke (2006) explain that thematic analysis can be conducted within an essentialist/realist framework, or a constructionist framework. The first examines participant's experiences, meanings, and realities, while the second examines how individual experiences, meanings, and realities are constructed by discourses within society (Braun & Clarke, 2006). Thematic analysis can cross over into thematic discourse analysis where the language around a theme becomes important to the theme itself. The flexibility of thematic analysis as a qualitative method allows for this. Thematic analysis has been used to look at all kinds of issues, from young people's experiences of treatment for anorexia nervosa (Tierney, 2008) to the male experience of infertility (Malik & Coulson, 2008).

Thematic analysis was chosen as the best methodological fit for the qualitative studies in this thesis due to its epistemological flexibility and it was considered advantageous to be able to use the same method of analysis for all the qualitative studies in this thesis. The data set in studies 3A & 3B could be approached from constructionist and realist perspectives, so one method and one data set could be used to answer two research questions from two different epistemological perspectives. In study 3A a realist perspective is taken when investigating BZP ban outcomes. During the analysis it is assumed that participant responses represent actual behavioural outcomes that reflect a tangible reality. In study 3B the same corpus is analysed, but from a constructionist perspective, where BZP party pill users responses are interpreted as social constructions of the risks and benefits of BZP party pill use. Assumptions about data in thematic analysis must be transparent. In the current

study it is assumed that the distributors of BZP party pill marketing material have a function to fulfill in the circulation of their advertising material. The obvious function is to sell BZP party pills, however the way they choose to do this is of primary interest. For this reason, a more constructionist approach is taken for this study. A constructionist approach in thematic analysis seeks to examine the socio-cultural contexts that help to shape individual discourses on a topic (Braun & Clarke, 2006). Often this approach crosses over into a thematic discourse analysis as underlying ideas, assumptions, and conceptualizations are identified in the discourses being analysed (Braun & Clarke, 2006). This approach allowed analysis of the discourse that the BZP party pill industry promoted around BZP party pills.

The data set of BZP party pill advertising material was read in its entirety and a list of possible codes was generated. Over several interactions the list of codes was refined and each data item was coded. An inductive approach was used when coding the data, meaning that the generation of codes was driven by the data, rather than a pre-determined theory. The frequency of each code in the data set was tallied so that strong themes in the data could be identified. As described by Braun and Clarke (2006), codes were mind-mapped and themes and sub-themes were identified. Mind mapping involved diagrammatically positioning codes, linking related codes together and identifying codes that opposed each other. This process required constant referral back and forth between the data set, the list of codes, and the mind map to ensure inferred relationships and contradictions were present in the data. Analysis was ongoing, with movement back and forth between each phase. This analysis was

conducted for each product, rather than each advertisement, so any code applied only once to each product across all advertisements for that brand of BZP party pill. In other words, all relevant codes/themes were applied to each product, so some products had multiple themes. But if the same code was identified for a product twice over two adverts, the code was only recorded once. This avoided having products with multiple adverts with the same themes being over represented, as advertisements for some brands of party pill were more prevalent than others. A list of the 43 products included is presented in appendix A.

Examples of advertisements are provided and the relevant themes discussed for each. Examples from counter top pamphlets have been directly scanned into the chapter. However the closure of many of the websites in this study means that examples from internet based advertisements have been transcribed. The final list of codes and their frequencies are displayed in table 3.0 at the end of this section. Codes that cluster into themes are presented together, while some codes are themes in their own right.

Analysis and discussion

Table 3.0 shows the 31 codes identified and their frequency in the data set. The frequency represents the number of BZP party pill products (out of 43) that fit each code. The total frequency represents the strength or prevalence of each theme in the entire data set.

Table 3.0.

Codes and themes identified in BZP party pill marketing material.

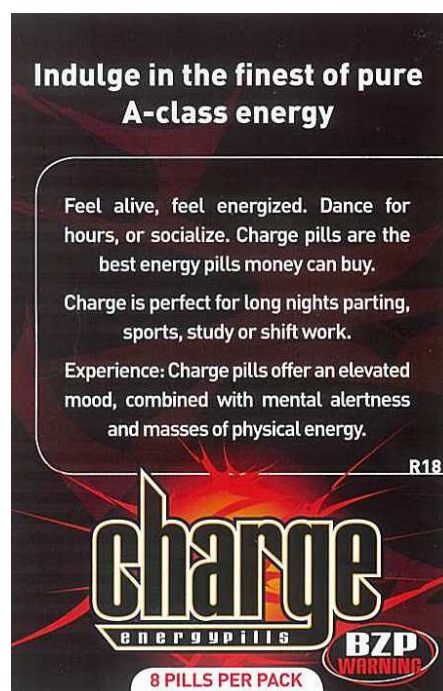
Codes sorted into themes	Frequency (out of 43)	Total frequency
<i>BZP party pills are like illegal drugs</i>		
2. Ecstasy like effects	16	
3. Amphetamine like effects	12	
4. Use of language associated with illegal drugs	18	
10. "Smooth"	8	
11. "Clean"	4	
12. "Strong"	13	
13. "Power"	5	
17. Journey, venture, ride	10	
18. Energy	19	
19. Euphoria	11	
24. Personal enlightenment	3	
27. Effects on mood	2	
28. Effects on mental state (e.g. alertness)	10	
31. Physical affects	5	
32. Comedown	9	145
<i>Stronger is better</i>		
1. "Strongest"/"Best" pill available	20	
12. "Strong"	13	
13. "Power"	5	
20. Intensity	3	
34. Recommended for experienced users	5	46
<i>The science of BZP party pills</i>		
14. Technological chemistry/advanced formulations	15	
9. Purity of ingredients	3	
21. Description of neurochemical affects	8	

29. Quality ingredients	3	29
<i>Target markets</i>		
15. Clubbing/dance scene as target audience	13	
26. Uses other than partying	5	18
<i>BZP party pill use as experience in itself</i>		
22. Pill use as experience in itself	3	
17. Journey, venture, ride	10	
24. Personal enlightenment	3	16
<i>Others</i>		
5. Party pills as safe	9	
6. Alternative to illegal drugs	8	
23. Weight loss aid	1	
25. Legal status	3	
30. Use advice/directions	22	
33. Testimonials	6	

A consistent theme identified in the data set was that BZP party pills were marketed as being like illegal drugs. Their effects were described in similar ways to the effects of illegal drugs, and the language employed was that commonly associated with illicit recreational drug use. Sixteen products were described as having effects similar to ecstasy, and 12 described effects similar to amphetamine. Bliss and Charge were two of these products.



Exemplar three. Advertisement for 'Bliss' party pills.



Exemplar four. Advertisement for 'Charge' party pills.

In the advertisement for Bliss the association with ecstasy is apparent through the use of the terms “loved up”, “Euphoric”, and “energetic”, which are emphasized to draw attention to the effects of the product. The testimonials also describe the subjective effects of Bliss as being similar to those of ecstasy. The use of testimonials in exemplar one serves to connect the potential user with ‘real’ user experiences, and to reaffirm the potential purchaser that the promised effects are ‘real’. However we know very little about the people who supposedly made the statements. We do not know for sure that they are talking about the product in question, and we do not even know whether they are real people. ‘Bliss’ also claims to be the “#1 party pill”, though there is no indication of who made this judgment, or what the criteria for this statement were. The

advertisement also states that the product has a “smoother comedown”. This acknowledgment of comedown effects at first appears to be detrimental to the aims of the advertisement. However, acknowledging a comedown effect might serve to reassure potential buyers that this product is similar to ecstasy, which is also reputed to cause comedown effects. Acknowledgement of a comedown reinforces the products likeness to illegal drugs. The term “smoother” might infer that the comedown effects from ‘Bliss’ are less severe than those of other BZP party pill products. It implies that other products cause a ‘rougher’ comedown, and that the users experience on ‘Bliss’ will be ‘smooth’ compared what other ‘rough’ products might offer.

In exemplar two, the advertisement for Charge uses descriptors like “pure”, “energized”, and “alertness” to emphasis the stimulant properties of the product. The word “pure” has strong associations with methamphetamine (P) in New Zealand. The commonly used street name for methamphetamine is ‘P’, literally an abbreviation for “Pure”. The word energy appears five times in this relatively brief advertisement, and the term “energy pill” is used as opposed to party pill. It was common for pills that claim to give similar effects to amphetamines to use the term “energy pill”, while those claiming to be like ecstasy were usually called “party pills”. This distinction served to identify the different contexts of use suggested for the pills. “Charge energy pills” are not just for “long nights partying”, according to the advertisement they are also suitable for “sports, study or shift work”. This is evidence of a diversification of the target market beyond recreational drug users in social settings, and this issue will be discussed in more detail later. It is also an acknowledgment that the products

illegal equivalent, amphetamines, are sometimes used for these purposes. The term “A-class” refers to the name of the company that distributes the product, but has obvious connotations to the term ‘class A’, the legal category in New Zealand for illegal substances that carry the heaviest penalties. Class A substances are in theory the ‘hardest’ drugs available in our communities, and use of the term “A-class” in the advertisement alludes to the strength of the product. The term “A-class” also has connotations around the quality of the product. In the context where ‘A’ is a grade that is better than ‘B’ or ‘C’, “A-class” implies top quality, and the word “class” alludes to the term ‘classy’, meaning sophisticated and refined. The “BZP WARNING” logo at the bottom of the advertisement reinforces the impression that this is a serious product with ‘real’ chemical ingredients, and that this is a good thing, otherwise attention would not be drawn to it.

An internet advertisement for Triple X party pills is direct in its comparisons to ecstasy.

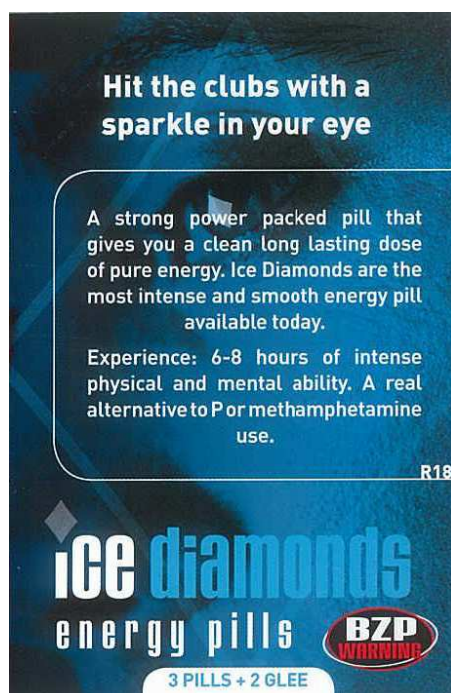
Exemplar five. Internet advertisement for ‘Triple X’ party pills.

“So you’re an experienced pill popper. Triple X are three of the strongest pills ever. Triple X are designed as an e substitute like Jax. Triple X will definitely take you to your limit of dance pill pleasure. With a massive 200mg of BZP and 300mg of Piperazine blend per tablet, this is the strongest legal alternative to Ecstasy around today, and a welcome addition to London Undergrounds Hardcore series.”

The strength of the pill is the selling point for Triple X. The message in this advertisement is that the stronger the pill the more like illegal drugs it is. The advertisement twice explicitly mentions that the product is an alternative to ecstasy. The advertisement also emphasizes the product's strength when it states that it will “take you to your limit of dance pill pleasure”. This statement

suggests that there is a limit to the pleasurable effects of these products, what happens beyond this limit is not clear (but it is presumably not pleasant). The statement also identifies dance party attendees as the target market for the product. This is reinforced by the use of the term “Hardcore”, which is usually associated with particular genres of dance party music. The companies name “London Underground” is loaded with connotations. One interpretation is that the term has a double meaning - it refers to the underground tube system in London, but also an ‘underground’ dance party or ‘rave’ culture in a city where many New Zealanders travel for overseas experiences.

There was a close relationship between BZP party pills similarity to illegal drugs and strength in many of the advertisements. This advertisement for ‘ice diamonds’ describes its affects as similar to those of methamphetamine while emphasizing the strength of the pill.



Exemplar six. Advertisement for ‘ice diamonds’ party pills.

Like exemplar four, this advertisement for 'ice diamonds' uses terms commonly associated with illicit substances like "clean", "pure", "energy", "intense", and "smooth". This product implicitly and explicitly likens itself to methamphetamine when it uses words like "ice" and "pure", and when it claims to be a "real alternative to P or methamphetamine use." Describing the product as "clean" implies that there are 'dirty' alternatives. It is unclear what this means, or whether it refers to the ingredients or the effects of the pills. Benzylpiperazine party pills were primarily marketed as being like illegal drugs. Their similarity to illegal drugs is emphasized and the language used in the marketing material assumes a certain level of experience or knowledge of illicit substance use. The BZP party pill marketing material places BZP party pill use within a culture of recreational drug use.

The theme that 'Stronger is better' was evident in many of the examples (e.g. the "Warning BZP" logos), and it describes the way marketing material for BZP party pills make claims about the strength of their product.



Exemplar seven. Advertisement for 'Jax' party pills

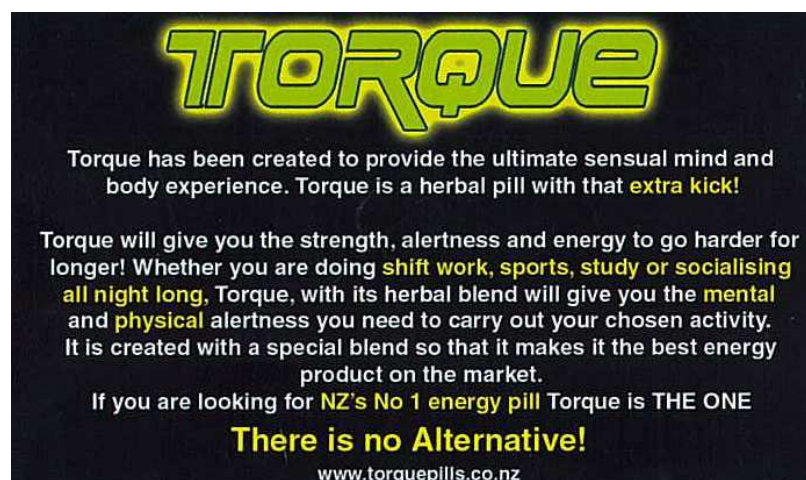


Exemplar eight. Advertisement for 'Bolts' party pills.

The emphasis in exemplars seven and eight is the strength of the pills. The repetition in the statement "Jax are strong, very strong" functions as a warning, and pre-empts advice on how much to take. The banner in the 'Jax' advertisement offers the product to "those who seek more". What the product offers more of is not made clear. This allows the potential buyer to tailor the product to their own needs, so they could be purchasing more energy, more fun, or more time on the dance floor. The advertisement also recommends the product for "experienced clubbers", again framing these pills within a culture of recreational substance use. The name of the product "Jax" refers to the Union Jack symbol that appears on the British flag, connecting the product to the company name "London Underground". Again, this plays on the sentimental

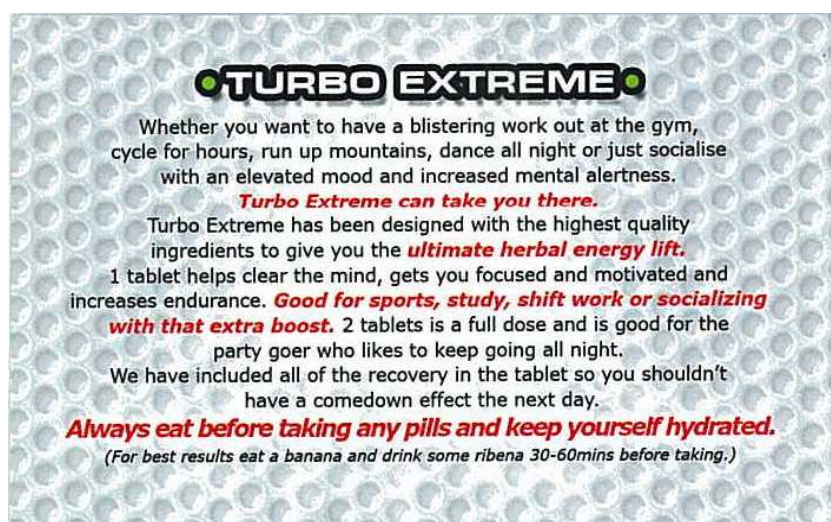
connection that some New Zealanders might have to the city of London after their overseas experiences, and relates the product to a known symbol of 'underground' raves or dance parties, implying that it's not part of the mainstream.

The advertisement for Bolts claims they are "the strongest energy pills legally available in the world". The strength of a pill was a common selling point, and 20 out of the 43 products claimed to be the "strongest" or "best" pill on the market. These claims are never backed up by information pertaining to ingredients or comparisons to other products. The advertisement states that "Bolts are guaranteed to make your jaws clench". This is a side-effect commonly associated with ecstasy and amphetamines (FADE, 2003; Parrott, 2001; Topp, Hando, Dillon, Roche & Solowij, 1999). The linking of side effects associated with illegal drugs reinforces the products similarity to these substances. These advertisements assume that the consumer is an experienced recreational substance user who wants stronger pills and heavier intoxication. Other BZP party pill advertisements made claims of being the "best" pills on the market, like Torque in example nine.



Exemplar nine. Advertisement for 'Torque' party pills.

This advertisement for Torque party pills also claims to be “the best energy product on the market”. The advertisement for 'Torque' also suggests alternative uses for the product as noted in previous examples. Some products attempt to diversify their target market by suggesting alternative uses. The advertisement for 'Turbo Extreme' below is another example of this.



Exemplar 10. Advertisement for 'Turbo Extreme' party pills.

These advertisements for 'Torque' and 'Turbo Extreme' suggest that the product will give the consumer an "extra boost" for a number of sporting activities, study, work, and socializing. This diversification of the target market takes BZP party pill use out of a recreational drug use scene, and into peoples daily lives. This, and other advertisements like it, comes very close to promoting dependence type use patterns. Harm reduction is certainly not the focus of this sort of advertising material. These BZP party pills were not being promoted as an alternative to illicit substances in these advertisements, they were portrayed as a tool for getting through the day.

Other advertisements abandon any attempt to suggest they are providing an alternative to illicit substances, let alone reduce harm. The following extract is from an internet advertisement for 'Fast and Furious'.

Exemplar 11. Internet advertisement for 'Fast and Furious' party pills.

*"BLOW YOUR BRAINS OUT
ONLY FOR THE HARDEST OF PILL DROPPERS
Fast and furious is the strongest energy pill ever produced. These pills
will keep you on a high for days."*

The emphasis in the 'Fast and Furious' advertisement is on complete intoxication, for as long as possible. "Blow[ing] your brains out" is a selling point for this product, though it might have a clear negative meaning in other contexts. The message is far from one of harm reduction, where BZP party pills are supposed to be a safe, legal alternative to illicit substances.

Another common theme was the use of claims of technologically advanced ingredient formulations, and references to neurochemical reactions to

BZP party pills. Fifteen products made claims about technological formulations, and eight presented (supposedly) scientific information about how BZP party pills work in the brain.



Exemplar 12. Advertisement for 'Dark Angel' BZP party pills.

The product in example 12 claims to be formulated by pharmacologists, and is designed to "target your body receptors quickly". The pills have been "formulated" to give the desired effect. The user is invited to "find the sin within!" suggesting the pills allow you to be the uninhibited, more fun version of yourself. Internet advertisements tended to go into more detail about the science of BZP party pills. The following is an extract from an internet advertisement for 'Devils'.

Exemplar 13. Internet advertisement for 'Devils' party pills.

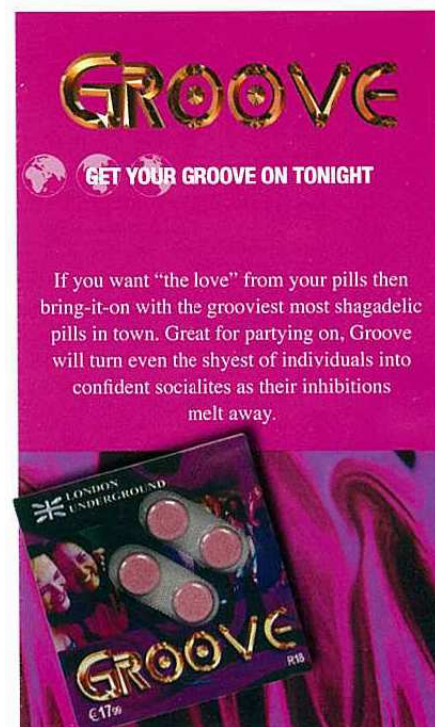
"Devils, is specifically formulated to stimulate and support various functions in both the body and brain including serotonin, noradrenalin and dopamine sensitivity, all of which lead to significant mood elevation. It is commonly theorized throughout Europe that the way in which the ingredients in Devils and Jax, may work in a positive way by causing an increase in sensitivity to TFMPP also avoiding the nasty come-down caused by the depletion of these chemicals by manipulating their secretion and re-uptake. It is further theorized that this may be the reason that these products are not addictive."

This extract attempts to explain how "Devils" can elicit ecstasy like affects, yet not cause the same damage that ecstasy is reputed for. These manufacturers realize that they claim their product is similar to illegal drugs, so they must explain how this is possible when the product is supposed to be safer than illegal drugs. Use of neuroscientific terms function to reassure the consumer that the manufacturer is an expert (or at least employs experts, i.e. pharmacologists), and that unlike illegal drugs, BZP party pills are scientifically tested, and are therefore safe.

The target market for BZP party pills identified in the marketing material was people in the clubbing or dance party scene, though there were some advertisements that suggested alternative purposes of use.



Exemplar 14. Advertisement for 'e Formula' party pills.



Exemplar 15. Advertisement for 'Groove' party pills.

These advertisements are explicit in stating that they are designed for dancing and socializing. Example 14 is similar to the advertisement for 'Bliss' in example three, and this is because these products are marketed and sold by the same company. It makes use of the same techniques to sell the product, including highlighting specific words, use of testimonials, and claiming to be the "strongest party pill". It identifies its target market with the phrase "Designed for dance floor demons". Interestingly, despite offering pleasure, the products in the last three examples have alluded to biblical interpretations of hell. Use of the terms "Dark angel", "Sin", "Devils", and "demons" suggest that there is something 'naughty' about these products, and that being 'bad' is 'good'. One interpretation of this could be that some of the excitement of use of these products is lost due

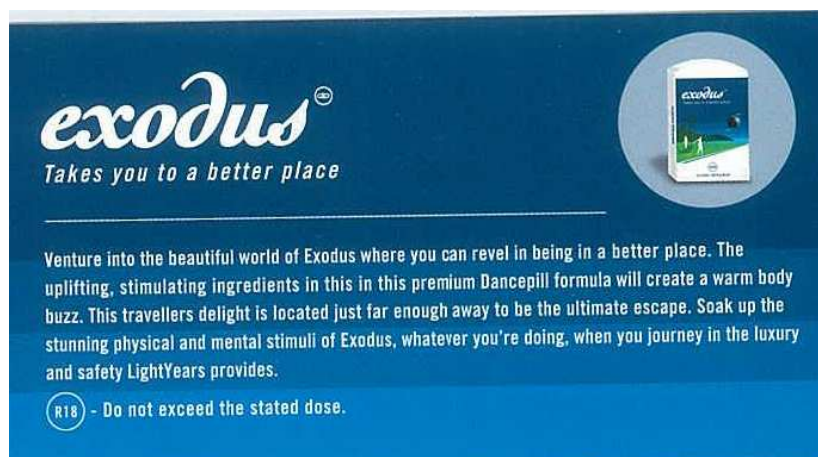
to their legal status. The advertisements could be attempting to replace the excitement that some users might experience when breaking the law while using illegal drugs.

The advertisement for 'Groove' offers to "turn even the shyest of individuals into confident socialites". Like 'Dark Angel' party pills in example 12, 'Groove' claims to be able to alter your personality, by "melting" individual inhibitions away. These advertisements are selling fun, promising the user a good time, regardless of who you are.

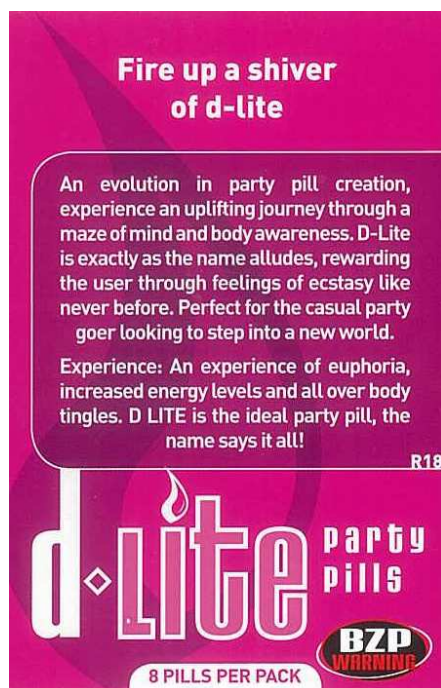
Another theme identified in the marketing material was 'Party pill use as an experience in itself'. These advertisements described the affects, feelings, and sensations elicited by BZP party pills as if they were an adventure or journey, or a path to personal enlightenment.



Exemplar 16. Advertisement for 'Frenzy' party pills.



Exemplar 17. Advertisement for 'exodus' party pills.



Exemplar 18. Advertisement 'd-Lite' party pills.

These advertisements describe the high of BZP party pills as if it were a place to be accessed through consumption of the product. The advertisement for 'd-Lite' party pills claims the product will take the user through a "maze of mind and body awareness". 'Exodus' promises to take the users to a "better place",

while 'Frenzy' invites you to "Venture into [its] exciting world". These advertisements encourage the user to think of BZP party pill use as an experience to be had. This is substance use for substance uses sake, rather than the enhancement of a specific activity, such as clubbing. These advertisements appear to target a different kind of party pill user to those in previous examples, perhaps users who are more conscious of their drug taking experience, rather than just looking make the night last longer.

Other less prominent themes were also identified in the data set. Conspicuous in its absence was a theme relating to the legal status of BZP party pills. Only three products mentioned that BZP was legal. A possible explanation for this omission in the marketing material is that mentioning BZP's legal status might undermine its similarity to illegal substances. Relatively few (8) products explicitly suggested they were an alternative to illegal drugs. Again, this might be seen to undermine the parallels the material draws between the BZP party pills and illegal drugs. This further supports the idea that BZP party pills are marketed as *part* of a recreational drug use culture, rather than an alternative to recreational drug use. This is not in line with the harm reduction messages from BZP party pill industry representatives in the media (Bowden, 2005, 2007a). Nine products claimed to be "safe". Many did not back up their claims at all, and some used 'the science of BZP party pills' to justify their claims of safety. One product called 'Weightless' suggested it could be used as an appetite suppressant, though its name suggests that this is in fact its primary purpose. Advice and directions for use were given for 22 of the products, though this was almost exclusively in internet based advertisements. Six products offered

testimonials from previous users, though the legitimacy of these testimonials is questionable.

Table 3.0 on page 62 presents the patterns in the data set. The most consistent theme in the data set is that BZP party pills are likened to illegal drugs when marketed to users or potential users. This is done by describing the effects of BZP party pills in similar ways to illegal drugs, most often ecstasy (16 products) or amphetamines (12 products). Products differentiated themselves as 'amphetamine like' or 'ecstasy like' by emphasizing energy or sociability. Amphetamine like products emphasized energy only, while ecstasy like products emphasized both energy and sociability. It should be noted that despite each advertisement being relatively brief, codes relating to this theme appeared in the data set of 43 products 145 times. This indicates that references to illegal drugs were densely packed into this corpus.

Nearly half (20) of the advertisements claimed their products were the strongest or best on the market, generally without information to justify their claims. Strength of party pill was a common selling point, with 13 out of 43 products using the word "strong" in their advertising.

Fifteen advertisements made claims about technological chemistry or advanced formulations to convince their audience that their products were scientifically sophisticated, and professionally researched. Thirteen products identified their target market as people in the dance party or clubbing scene, and 10 advertisements described BZP party pill use as if it were a journey or a place to venture to. Twenty two of the products gave some directions or advice for use in their advertising material.

General discussion

In summary, the marketing material for BZP party pills emphasizes the products similarity to illegal drugs, primarily ecstasy and amphetamines. The language in the marketing material is borrowed from a culture of recreational drug use, and functions to position BZP party pill use within that culture. The strength of BZP party pills is a primary selling point, and the stronger a pill is, the more like its illegal counterpart it is suggested to be. Scientific language is used to convince the consumer that the manufacturer is an expert, and should be trusted. The target audience for these advertisements appears to be people in the clubbing or dance party scene, a community already associated with recreational drug use. However a few ads suggested BZP use for every day activities such as sport or work, indicating an attempt at broadening the market, and a move away from BZP as a recreational substance for the purpose of socializing and nightlife. The last major theme in the data set described BZP party pill use as an experience in itself, where the effects of BZP party pill use are almost made tangible by describing them as a place or a journey. More minor themes in the data included a lack of acknowledgement of BZP's legal status and potential as an alternative to illegal drugs, party pills as a safe drug and weight loss aid, and the use of testimonials. Many advertisements provided directions for use of their products, primarily on the internet-based ads.

Overall, BZP party pill marketing material functions to embed the product within a culture of illegal recreational drug use. As described in chapter one, this culture tends to involve relatively infrequent, but regular use of multiple substances for the purpose of enhancing a social event. This kind of drug use is

associated with successful or functional users, and a lack of dependence or addiction. The objective of BZP marketing material is to sell an altered state of mind to consumers who understand the language and culture of drug use. There is little emphasis on BZP party pills as a harm reduction tool.

The implications of these findings are, that according to the marketing material, users of BZP party pills are likely to be users of other illicit substances. Suggestions (Barnett, 2007; Bowden, 2005, 2007a, 2007b) that BZP party pill users are encouraged to stop using illicit substances in favour of BZP are not supported in the advertising for the products. The advertising material inadvertently (or not) promotes a culture in which a variety of substances are used, legal and illegal. The marketing material does not support the harm reduction message broadcast by industry representatives in the media (Barnett, 2007; Bowden, 2005, 2007a, 2007b), so it appears different messages are targeted at different audiences. In party pill advertisements BZP party pill users are provided with information about which illegal drugs the products can simulate, while concerned parents and politicians are reassured via the media that the BZP party pill industry is saving their children from the scourge of illegal drug use. In chapter four I will examine what role BZP party pills are playing for recreational substance users, by testing whether illicit substance use is reduced for those who use BZP party pills.

Chapter four

Study 2: Benzylpiperazine party pills, harm reduction, and risk perception

Introduction

As described in Chapters one and two, it has been suggested that BZP party pills potentially reduced substance related harm by providing illicit substance users with a legal and safe alternative to illicit substances (Bowden, 2007a). This would suggest that BZP party pill users should use fewer illicit substances, on fewer occasions, than illicit substance users who do not use BZP party pills. Alternatively, BZP party pills may be part of a poly-drug menu, where illicit substance users incorporate BZP into their recreational poly-drug use pattern. In this case, BZP party pill users should use a similar number of illicit substances, at a similar rate, to illicit substance users who do not use BZP party pills. Establishing whether BZP party pills reduce substance related harm depends on whether BZP party pills are used instead of, or in addition to, illicit substances. This chapter will focus on investigating which of these scenarios is the case.

BZP party pill user's interest in future illicit substance use is compared to non-users by asking them which substances they would like to try, or would never try or use again. If BZP was used as a harm-reducing alternative to illicit substances, it might be expected that BZP party pill users would show less interest in using other illicit substances compared to illicit users who do not use BZP. Apart from revealing potential future use-rates for illicit substances, responses to these questions could also reveal differences in attitudes toward illicit substance use between BZP and illicit substance users and non-users.

Level of ingredient knowledge was checked to see whether BZP party pill users know what they are taking, as knowledge of the contents of a substance is important for assessment of risk. A lack of ingredient knowledge, despite this information being readily accessible, might indicate a reliance on judgment of legal status when assessing risk. Alternatively, the contents of a party pill might be irrelevant to people accustomed to consuming illicit substances with unknown ingredients.

Taken together, comparisons of use patterns, drugs used, interest in future drug use, and ingredient knowledge, will provide evidence to establish whether BZP party pills were used in a way that reduced substance related harm or not.

As discussed in Chapter one, previous research has found that risk perception and drug use are not always related to each other in ways we would expect, and users are generally aware of the risks (Kelly, 2005; Marsch et al., 2007; Murphy et al., 2006; White et al., 2006). Increased awareness of risks does not always lead to a reduction in substance use behaviour (for example Gamma et al., 2005). In the second part of study two, risk perception for BZP and illicit substance users and non-users were compared. Ratings of risk between substances will also be compared, allowing us to see how BZP party pills are perceived in relation to other licit and illicit substances.

The way people construct risk for different substances will be analyzed using inferential statistics. Factor analysis of risk ratings will show which substances people perceive risks for in similar ways. The same analyses will be carried out for substances people said they would never use. These analyses

will allow us to see which substances cluster together when people decide against their use, and whether risk perception is a factor in this decision process.

Finally, to assess whether a relationship exists between risk perception and drug using behaviour, the impact of risk perception on the frequency of drug use will be analyzed for each substance. A negative correlation between perceived risk and frequency of substance use would indicate that increased awareness of risk is related to reduced levels of substance use. A non-significant correlation might indicate that perceived risk is unrelated to levels of use for that substance, or perhaps there is some intervening variable, such as harm reduction strategies, mediating a causal relationship. This study had ethical approval from Victoria University's School of Psychology Human Ethics Committee.

Method

Participants. A sample of 796 first year psychology students voluntarily and anonymously completed a survey about their use of legal and illegal substances. They received credit towards a mandatory research participation component of their course for their participation in the study. As the survey asked participants to disclose illegal behaviour, students were informed in writing that participation was voluntary and no identifying information would be collected, and should not be provided (see appendix B for briefing sheet).

Measure. The survey was designed to directly address questions around BZP party pill use in relation to use of other substances. The survey was designed to be brief (taking no more than 5 minutes to complete) while eliciting as much information about substance use attitudes and behaviours as possible.

There was no deception or manipulation of respondents involved in the survey and each question was constructed to allow for the simplest response possible. The survey asked participants to respond to questions about 16 substances: tobacco, alcohol, caffeine, inhalants, herbal highs/legal party pills (BZP), LSD, cocaine, ecstasy, speed, Ketamine, cannabis, 'P' (methamphetamine), nitrous oxide (nos), GHB, heroin, and Ritalin.² The eleven illegal substances selected for the survey (LSD, cocaine, ecstasy, speed, Ketamine, cannabis, 'P', nitrous oxide, GHB, heroin, and Ritalin) were identified as available in New Zealand in the 2006 Illicit Drugs Monitoring System (Wilkins, Girling, & Sweetsur, 2006). The substances represent a variety of types of drugs including stimulants, depressants, hallucinogens, and opiates, used more or less commonly in New Zealand. A diverse range of drugs was selected for this study in order to elicit as broad a variety of attitudes towards the various drugs as possible, as well as measuring the prevalence of use of each substance in the sample. The substance of primary interest, BZP party pills, was referred to as herbal highs/legal party pills in the survey, as these were terms commonly used in media coverage and marketing of BZP products. Use of these terms also avoided revealing the name of party pill ingredients, enabling us to assess user's knowledge of ingredients. Four other legal substances, (tobacco, alcohol, caffeine, inhalants) were included to allow assessment of the impact of legal

² For the purpose of this study "street" drug names were used. Students were free to interpret for themselves what these substances were. It should be understood that even though a student may believe they have used a particular substance, the ingredients might be different to what they believe they have taken. For example, ecstasy supposedly contains MDMA, though a pill may predominantly contain amphetamine or some other ingredient. In New Zealand much of the 'speed' available is 'cut down' methamphetamine (P) rather than amphetamine, and the term 'Ritalin' often refers to any prescription medication treatment for ADHD. For this study, it is what the student believes they have used that is important.

status on responding. Several substances have ambiguous legal status. Ritalin is a prescription drug, and it is illegal to possess or to consume for recreational purposes without a prescription. Inhalants such as spray paint, glue, and aerosols are household items readily available from supermarkets and hardware stores, and abuse of these substances is not illegal. Nitrous oxide has only been a controlled substance since 2005, prior to which it was sold legally in retail outlets similar to those selling BZP party pills. Cannabis is illegal in New Zealand, though there has been long standing debate over decriminalizing personal use. Surveys asked students whether they had ever used a substance, and if so, how many times they had used it in the previous six months. The six-month time frame was selected for several reasons. Much survey based drug research asks participants about their drug use over the previous 12 months (for example Ministry of Health, 2007; Nicholson, White & Duncan, 1999; Parks & Kennedy, 2004; Wilkins, Girling, Sweetsur, Huckle, & Huakau, 2006). However it was assumed that recall of drug use would be more accurate over a shorter period of time. To assist respondents with their judgments of drug use frequency they were told how many days and weekends there were in a six-month period. Another reason for selecting a six-month time period for the survey was to enable more valid classification of respondents as 'recent users'. By collecting drug use behaviours over a shorter period of time, it is more likely that the use patterns observed are current and not historical. This is not to say that drug use patterns could not have changed over the six-months surveyed, however they are likely to be a more accurate representation of current use than behaviour measured over the previous 12 months. The six-month time period also allowed surveying of the

same respondents more than once a year without overlapping the time periods included in the survey. Although not included in the current thesis, this allowed the potential for analysis across two time points. Respondents were also asked to indicate which of the substances they had not used before but would like to try, and which they would never use again or try. Students were asked to state what the most common active ingredients in BZP party pills were, if they knew (the term BZP was not used in the survey, BZP party pills were referred to as “Herbal highs/legal party pills”). Students were asked to rate the perceived risk of using each substance on a 5-point scale from safe (1) to dangerous (5). Such scales are standard practice in psychological research, where the respondents self-define the meanings of safety and dangerousness of a behaviour. Finally, some non-identifying demographic information was collected: gender, age, and ethnicity (see appendix C for survey). There are some limitations to a short survey such as the one used for this study. There is inevitably a trade-off between the level of information provided to participants and maintaining the brevity of the survey tool. As a result, questions may leave themselves open to the interpretation of the respondent, as is the case for the perceived risk scale in the current survey. This openness to interpretation is part of the field of social psychology, and indeed lends itself to the gathering of a diverse range of attitudes. Further limitations in light of study findings are discussed in the discussion sections of this chapter.

The survey was delivered as a paper based questionnaire during laboratory classes and data was collected over four time points in 2006 in order to collect responses from students across different courses. The data was

entered into SPSS 14.0 software package for analysis. For this sample, only students who completed the survey once are included.

Analysis

All results reported were tested at 95% confidence level. Results were reported for the entire sample first for each question, and then all BZP users were compared to BZP non-users. The sample was broken down even further to allow several more specific comparisons to be made. To assess whether BZP party pill use impacted on illicit substance use, illicit substance users were separated into two groups, based on use or non-use of BZP party pills. The remaining participants who did not use illicit substances were also divided into groups based on their use or non-use of BZP party pills. These four sub-groups (see table 4.0) allow a comparison of the use of illicit and licit substances for BZP party pill users and non-users. The sub-groups were: Students who recently used neither BZP nor other illicit substances (Group 1), students who recently used only BZP and no illicit substances (Group 2), students who recently used both BZP and at least one illicit substance (Group 3), and students who had not recently used BZP but had recently used at least one illicit substance (Group 4). Recent use is defined as any use in the previous six months, and users in all groups may use the licit substances alcohol, tobacco, caffeine, and inhalants.

Table 4.0.
Sample sub-groups

	No recent illicit substance use	Recent illicit substance use
No recent BZP use	Group 1	Group 4
Recent BZP use	Group 2	Group 3

Study 2A: Do BZP party pills reduce substance related harm by reducing illicit substance use?

Results and discussion

Sample demographic information. Of the 796 students who responded, 67.6% were female and 32.4% were male. The mean age of respondents was 20.3 years (range 16 – 59 years). Seventy four point eight percent of the sample were New Zealand European/Pakeha, 5.0% were Maori, 3.1% were Pacific nations, 11.2% were Asian, and 4.9% were from other ethnic groups. Females and people who identified as New Zealand European/Pakeha were over-represented in the sample compared to the New Zealand population (Statistics New Zealand, 2007).

Sub-group demographics. BZP non-users: This sub-group of 578 participants had not recently used BZP. Sixty nine percent of BZP non-users were female, 31% were male. The mean age of BZP non-users was 20.8 years (range 17 – 59). Seventy two percent of BZP non-users were New Zealand European/Pakeha, 6% were Maori, 3% were Pacific nations, 13% were Asian,

and 6% were from other ethnic groups. This group was further split into two groups based on student's use or non-use of illicit substances (see table 4.0).

Group 1 (No BZP/No illicit): This sub-group of 467 participants had not recently used any illicit substances or BZP. Seventy one point four percent of this sub-group were female, 28.6% were male. The mean age of participants from group one was 20.9 years (range 17 – 59). Sixty nine point nine percent of group one were New Zealand European/Pakeha, 5.5% were Maori, 3.5% were Pacific nations, 15.4% were Asian, and 5.7% were from other ethnic groups.

Group 4 (No BZP/Illicit): This sub-group of 111 participants had recently used at least one illicit substance, but had not recently used BZP. Fifty seven point eight percent of this sub-group were female, 42.2% were male. The mean age of participants from group four was 20.3 years (range 17 – 39). Eighty two point six percent of group four were New Zealand European/Pakeha, 6.4% were Maori, 1.8% were Pacific nations, 4.6% were Asian, and 4.6% were from other ethnic groups.

All BZP users: This sub-group of 218 participants had recently used BZP. Sixty five percent of BZP users were female, 35 % were male. The mean age of BZP using participants was 19.1 years (range 16 – 40). Eighty two percent of BZP users were New Zealand European/Pakeha, 7% were Maori, 3% were Pacific nations, 6% were Asian, and 3% were from other ethnic groups. This group was further split into two groups based on student's use or non-use of illicit substances:

Group 2 (BZP/No illicit): This sub-group of 58 participants had not recently used any illicit substances, but had recently used BZP party pills. Sixty nine

percent of this sub-group were female, 31% were male. The mean age of participants from group two was 19.8 years (range 16 – 40). Eighty three percent of group two were New Zealand European/Pakeha, 5% were Maori, 4% were Pacific nations, and 9% were Asian.

Group 3 (BZP/Illicit): This sub-group of 160 participants were recent users of at least one illicit substance, and were also recent users of BZP party pills. Sixty three percent of this sub-group were female, 37% were male. The mean age of participants from group three was 18.9 years (range 17 – 29). Eighty two percent of group three were New Zealand European/Pakeha, 7.0% were Maori, 3% were Pacific nations, 5% were Asian, and 5% were from other ethnic groups.

Figure 4.0 shows what percentage of the entire sample make up each sub-group. The majority of respondents did not use any illicit substances or BZP party pills, while 20% of respondents use both BZP party pills and at least one illicit substance. Nearly three quarters (73%) of BZP users are also illicit substance users.

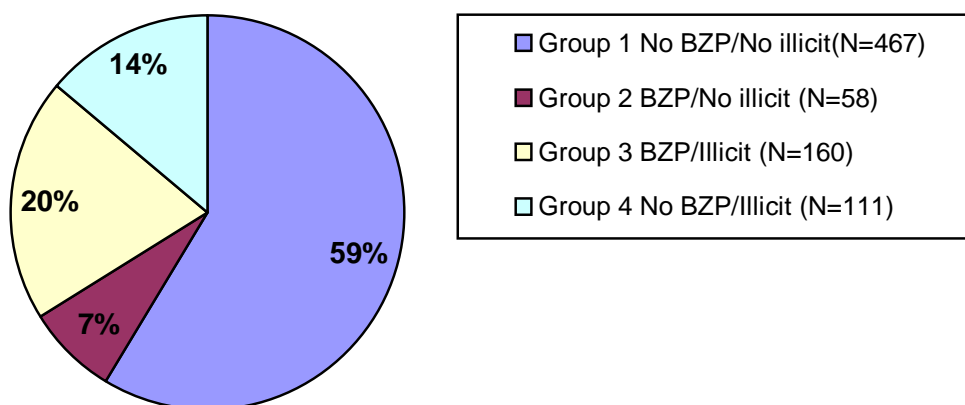


Figure 4.0: Proportion of sample in each sub-group

The subgroups were tested for demographic differences. There was no sex difference between BZP users and non-users ($\chi^2 (1, n=788) = 1.21, p=.27$), however non-users were significantly older than BZP users ($F(1,784)=17.34, p<.001$), and Pakeha were more likely to be BZP users, whilst Asian people were more likely to be BZP non-users ($\chi^2 (5, n=779)=12.28, p<.05$). There was a significant age effect for the four subgroups ($F(3,782)=6.73, p<.001$), and the post-hoc Tukey test ($p<.001$) showed that both BZP non-user groups (groups one and four) were older than both BZP user groups (groups two and three). There was also a group by ethnicity difference for the four subgroups, where Pakeha were less likely to be in group one, and more likely to be in all three other groups, while Asian people were more likely to be in group one, and less likely to be in groups three and four ($\chi^2 (15, n=779)=27.58, p<.05$). In addition there were sex differences for the four subgroups, where females were less likely to be in the illicit user groups (groups three and four), and more likely to be in the non-user group (group one) ($\chi^2 (3, n=788)=9.29, p<.05$). These differences tell us

that BZP party pill users in this sample were predominantly young and Pakeha. A sex difference emerges when the groups are further split based on illicit substance use, where males appear more likely to use illicit substances than females.

'Ever used' data

Each participant was asked to indicate whether or not they had ever used any of the 16 substances. Figure 4.1 below shows what percentage of the entire sample had ever used each substance. Alcohol was the most commonly consumed legal substance with 95.1% of the entire sample having ever used it. The most commonly used illicit substance was cannabis with 54.0% of the entire sample having used it in the past. Forty four point three percent of the sample reported having used BZP at least once in the past.

When the sample is split into recent BZP users and non-users, differences in the rates of substances ever used can be observed. Figure 4.2 shows that for most substances, recent BZP users are significantly more likely to have ever used them. BZP users were significantly more likely to have used all the licit substances investigated (all X^2 's (1,n=760)> 6.89, p 's< .01). BZP users were significantly more likely to have used many of the illicit substances investigated also. The largest differences between BZP users and non-users are seen for cannabis, nitrous oxide, and ecstasy (all X^2 's (1,n=776)>36.75, p 's<.001). Ritalin, 'P', speed, and Ketamine were also significantly more likely to have been used by recent BZP users (all X^2 's (1,n=747)>7.74, p 's<.01).

Differences are also observed when the sample is split further into four sub-groups based on recent use and non-use of BZP and illicit substances.

Figure 4.3 below shows what percentages of each sub-group have ever used substances. When comparing illicit users who have and have not recently used BZP (groups 3 & 4), those who use BZP are significantly more likely to have ever used ecstasy ($\chi^2(1, n=266)=6.07, p=.01$) and nitrous oxide ($\chi^2(1, n=266)=15.21, p<.001$). When comparing the groups who have not recently used illicit substances (groups 1 & 2), recent BZP users (group 2) are significantly more likely to have ever used tobacco, cannabis, and inhalants (all χ^2 's ($1, n=501$) $>4.57, p$'s $<.03$). There are no instances where a BZP using group is significantly *less* likely to have ever used a substance. Individuals who have recently used BZP party pills are at least equally likely to have used the other substances in the survey, and for several substances are more likely to have a history of use.

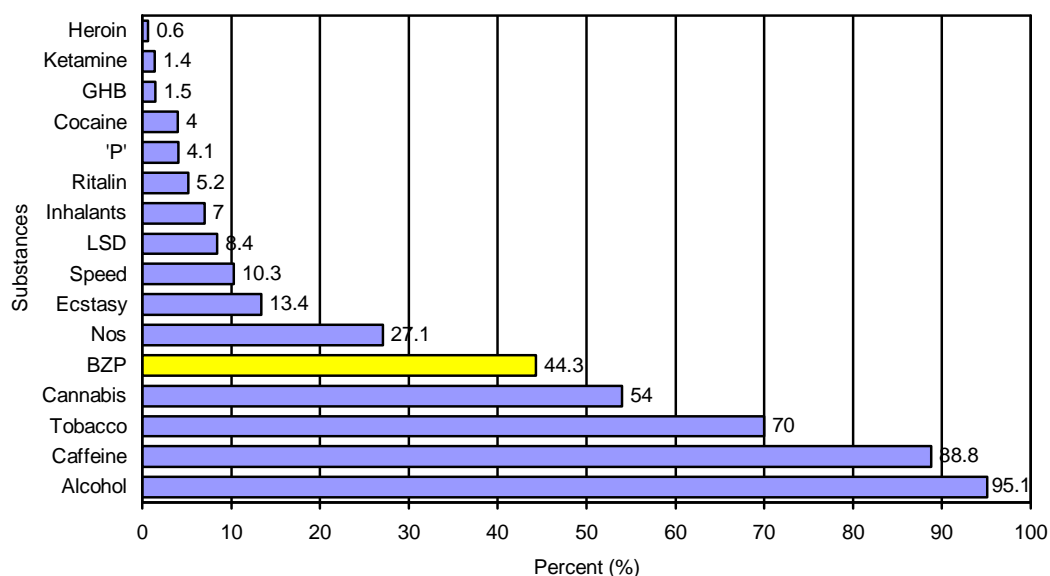


Figure 4.1: Percentage of entire sample that have used substances at least once in the past.

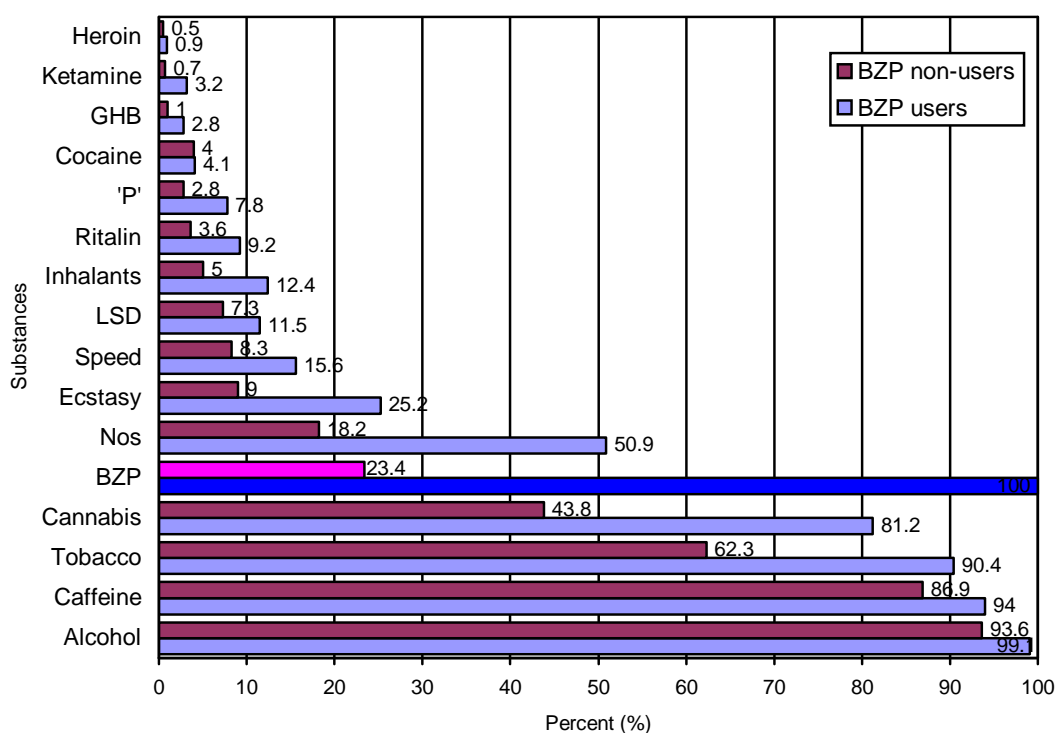


Figure 4.2: Percentage of current BZP users and non-users who have used substances at least once in the past.

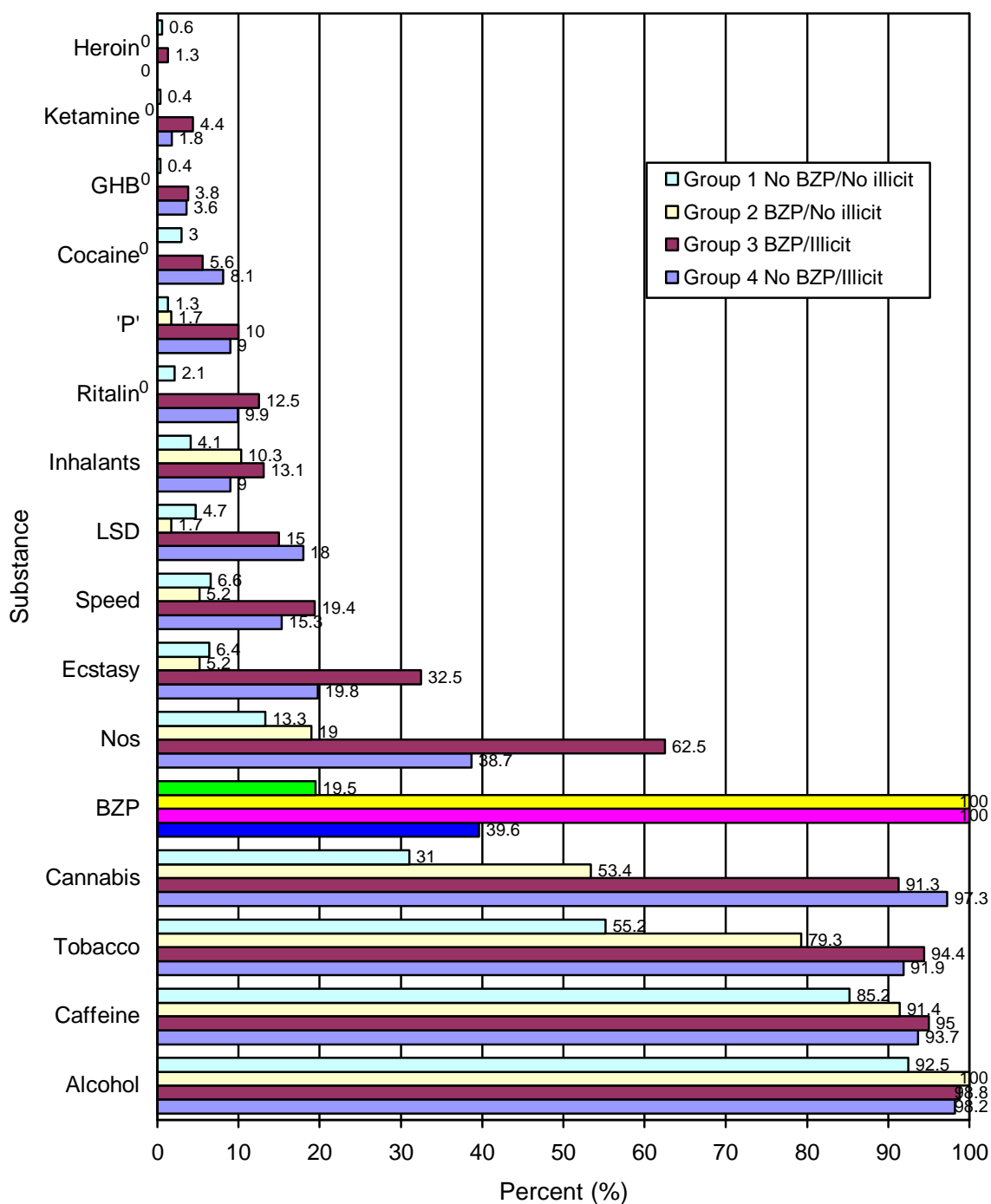


Figure 4.3: Percentage of participants in each sub-group that have used substances at least once in the past.

To summarize the findings for this question, recent use of BZP does not mean respondents are any less likely to have used illicit substances in the past, and for those substances mentioned above, being a BZP user means respondents were more likely to have a history of use.

Recent user data

To assess whether BZP party pill use impacts on recent substance use, respondents were asked how many times, if at all, they had used a substance in the six months prior to answering the survey. For the purposes of this study, any use in the previous six months was considered recent use. Figure 4.4 below shows what percentage of the entire sample has used each substance in the six months prior to answering the survey. Sub-groups were formed based on this recent user data. The illicit substance most commonly used in the previous six months was cannabis (29.4%). Nitrous oxide (8.5%) and ecstasy (6.0%) were the next most popular illicit substances in recent use. Alcohol was recently used by 87.4% of the sample, and caffeine by 78.5%. BZP was recently used by over a quarter of the sample (27.4%), making it more popular than all illicit substances except cannabis. In Wilkins, Girling, Sweetsur, Huckle, and Huakau's (2006) national study of BZP party pill use, 15.3% of the general population reported using BZP party pills in the previous 12 months. Previous year use rates were highest for 18-19 year olds (33.9%) and 20-24 year olds (38%), indicating that the sample in the current study is likely to be representative of the BZP party pill target market.

When respondents who had recently used BZP are compared to those who had not, differences in both licit and illicit substance use rates could be

seen. Figure 4.5 below graphically demonstrates some substantial differences in use rates between groups. Recent BZP users were at least 10 times more likely to be recent users of LSD, ecstasy, and Ritalin than BZP non-users. They were also at least seven times more likely to be recent users of speed and nitrous oxide, and at least three times more likely to be recent users of cannabis, 'P', and inhalants, when compared to BZP non-users. BZP users were also twice as likely to be current tobacco users. There were no substances for which recent BZP use was associated with lesser likelihood of use of that substance.

When the sample was further divided into four sub-groups, differences in recent use rates depending on recent use or non-use of illicit substances could be seen. There was no recent illicit use for groups one and two, as by definition, they had not recently used illicit substances. Differences can be noted for these two groups for licit substances however. Group two BZP users are more than twice as likely to be recent users of tobacco, compared to their BZP non-using counterparts from group one. Also worth noting, is that 100% of the 58 respondents from group two are recent users of alcohol.

Some considerable differences between the two recent illicit user groups are also apparent. Recent BZP and illicit users (group 3) were at least three times as likely to be recent users of ecstasy compared to current illicit users with no BZP use (group 4). Members of group three were also at least twice as likely to be recent users of Ritalin, nitrous oxide, and LSD. The only illicit substance more likely to be used by group four was cannabis; however this difference was small at only 1.8%.

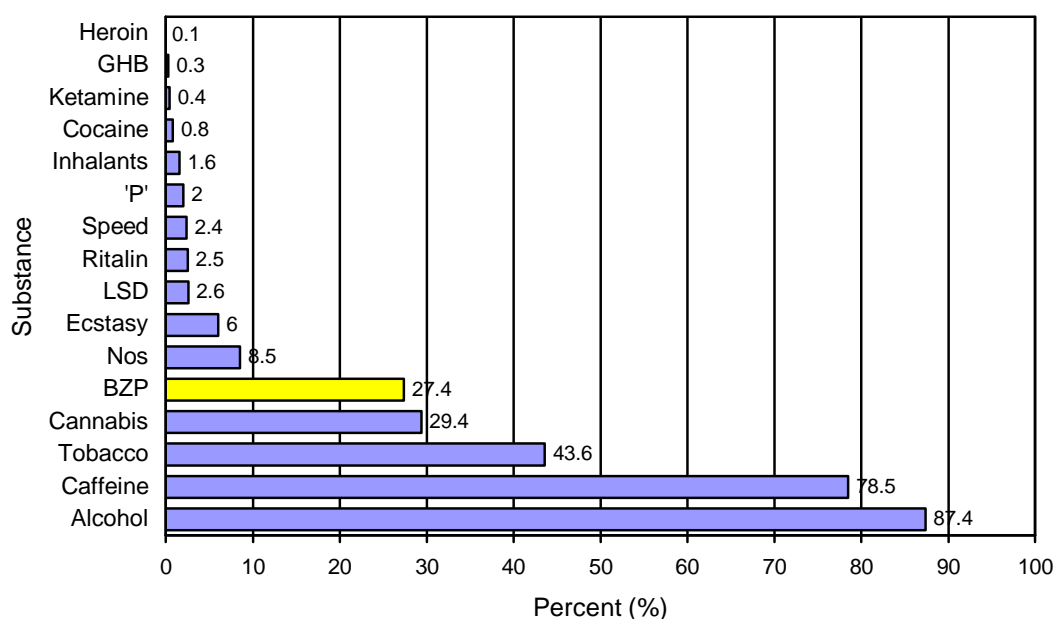


Figure 4.4: Percentage of participants in entire sample who had recently used substances.

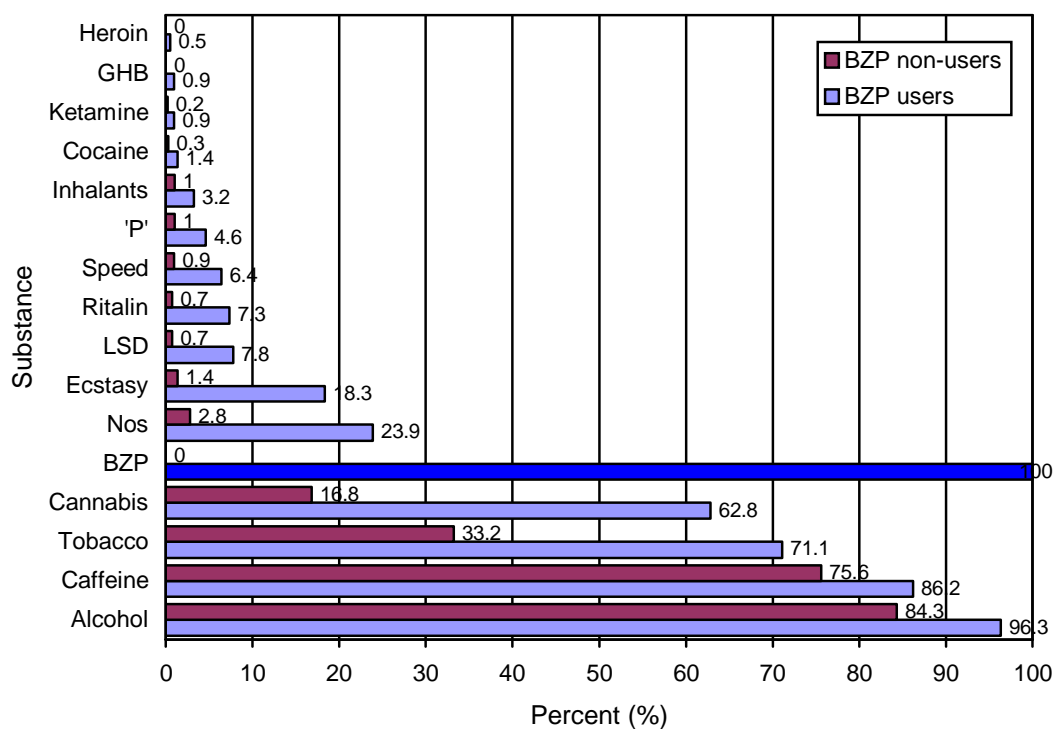


Figure 4.5: Percentage of recent BZP users and non-users who had recently used other substances.

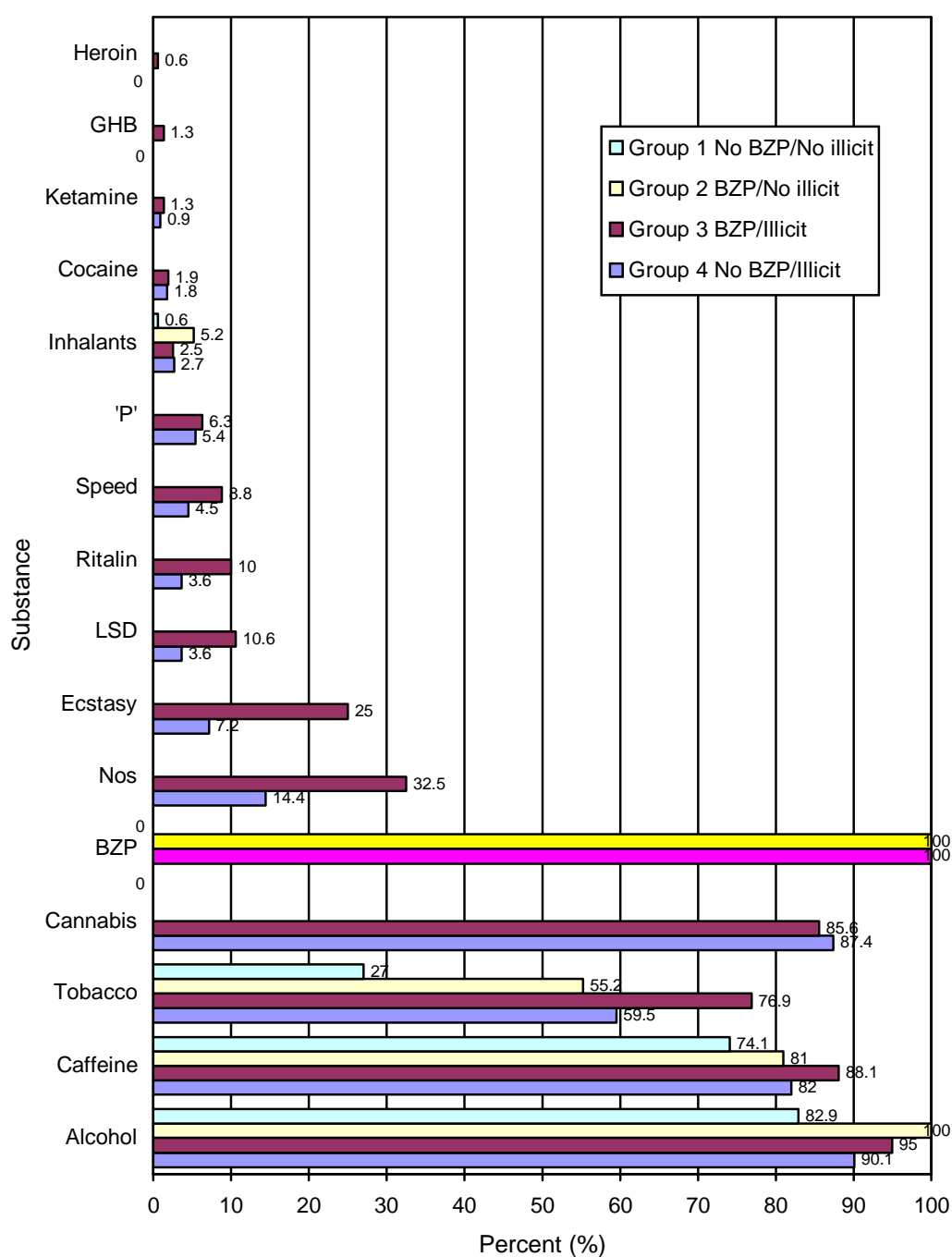


Figure 4.6: Percentage participants in each sub-group who had recently used substances (note: sub-groups 1 and 2 have no recent illicit substance use.)

If one accepts at face value the potential benefits of BZP party pills as reducing harm by reducing illicit substance use, they are not fulfilling their purpose. Benzylpiperazine party pill users were indeed more likely to have recently used many illicit substances, despite making use of BZP. This would suggest that BZP party pills were being used in addition to, rather than instead of, illicit substances. Increasing the number of substances used by an individual increases the risk of harm (Topp, Hando, Dillon, Roche, & Solowij, 1999; Parker, 2005).

Frequency of use and number of substances used

In order to examine whether BZP party pill use reduced the frequency and variety of drugs used, recent users were asked how many times they had used each substance in the last six months. For tobacco, alcohol, and caffeine, respondents were asked to state the number of *days* they had used in the previous six months, and for all other substances they were asked to stipulate the number of *times* they had used them. Table 4.1 describes how frequently *recent users* from the entire sample used each substance, in the six months prior to answering the survey.

There was only one significant difference between sub-groups in relation to frequency of use of substances. Groups one and four used alcohol significantly less often than groups two and three ($F(3,693)=16.52, p<.001$), indicating that BZP users consume alcohol more often than BZP non-users, regardless of whether they use illicit substances or not. Other than the difference for alcohol consumption, there were no significant differences between sub-groups three and four in the frequency with which illicit substances were used.

Table 4.1.

Frequency of use over six months for entire sample.

Substance	No. of recent users	Mean number of times/days used (SD)	Rank	Recent users who use at least weekly	
				N	%
Caffeine	625	81.3 (70.0)*	1	417	66.7%
Tobacco	347	57.8 (73.5)*	2	140	40.3%
Inhalants	13	37.5 (64.7)	3	3	23.1%
Alcohol	696	32.2 (33.6)*	4	303	43.5%
Cannabis	234	17.1 (36.2)	5	28	12.0%
Cocaine	6	16.5 (16.5)	6	2	33.3%
Heroin	1	8.0 (8.0)	7	0	0.0%
Ketamine	3	5.0 (4.6)	8	0	0.0%
Nitrous oxide	68	4.8 (10.5)	9	2	2.9%
BZP	218	4.2 (8.1)	10	4	1.8%
Ecstasy	48	3.0 (3.4)	11	0	0.0%
GHB	2	3.0 (2.8)	11	0	0.0%
'P'	16	2.4 (3.7)	13	0	0.0%
LSD	21	2.2 (1.9)	14	0	0.0%
Speed	19	2.0 (1.2)	15	0	0.0%
Ritalin	20	1.7 (1.6)	16	0	0.0%

* = *days used*

Again, BZP party pills do not appear to reduce potential illicit substance-related harm. Students who use BZP party pills and illicit substances use illicit substances equally as often as illicit users who do not use BZP party pills. Further, BZP party pill users are at higher risk of alcohol-related harm, as both BZP using groups used alcohol more often than the BZP non-using groups.

There were significant differences in the number of licit and illicit substances used by the four sub-groups. Table 4.2 details the number of

substances used by the different subgroups. Groups one and four used significantly fewer licit substances than groups two and three ($F(3,792)=210.7$, $p<.001$) indicating that BZP users used a wider variety of licit substances than non-users. For illicit substances, group three used significantly more substances than group four ($F(3,792)=396.6$, $p<.001$), indicating that BZP users who used illicit substances used a wider variety of substances than illicit users who had not used BZP.

Table 4.2.

Number of different substances used by sub-groups.

	Mean number of <i>licit</i> substances used (SD)	Range of <i>licit</i> substances used	Mean number of <i>illicit</i> substances used (SD)	Range of <i>illicit</i> substances used
Group 1	1.8 (0.9)	0 – 4	0.0 (0.0)	0 – 0
Group 2	3.4 (0.7)	2 – 5	0.0 (0.0)	0 – 0
Group 3	3.6 (0.7)	1 – 5	1.8 (1.3)	1 – 7
Group 4	2.3 (0.8)	0 – 4	1.3 (1.0)	1 – 7

The finding that BZP party pill users from group three used a wider variety of substances compared to illicit substance users from group four, would again indicate that BZP party pill users were at increased risk of substance related harm. Not only did BZP party pill users who used illicit substances use them equally as often, but they also used a wider variety of substances compared to participants who used illicit substances but not BZP party pills. Benzylpiperazine party pill users were indeed poly-drug users.

Substances respondents wish to try

To test whether BZP party pill use reduced user's interest in illicit substance use, respondents were also asked to indicate which of the substances they had not used but would like to try in the future. Results from the entire sample are shown in figure 4.7, and the most popular substances respondents wished to try were ecstasy (15.7%), followed by BZP (11.4%), and cocaine (9.4%). Inhalants (0.6%) were the least popular substance, followed by caffeine (1.3%), tobacco (1.1%), and alcohol (0.8%). However, the unpopularity of caffeine, tobacco, and alcohol is explained by the fact that a high proportion of respondents had already used these substances. The illicit substance that respondents expressed the least interest in trying was 'P' (1.3%).

When the sample is split into BZP users and non-users it is evident that BZP users are more likely to want to try other substances. Looking at figure 4.8, most noticeable is the proportion of BZP users who wished to try ecstasy (33.9%). BZP users were significantly more likely to want to try ecstasy, LSD, speed, cocaine, nitrous oxide, Ritalin, Ketamine, GHB, cannabis, and heroin (all $\chi^2(1, n=791) > 4.1$, $p < .05$) compared to BZP non-users. The substance that BZP non-users were most likely to want to try was BZP (15.1%), indicating that a substantial proportion of BZP non-users would consider using BZP in the future.

There were significant differences between sub-groups for substances respondents wish to try. Figure 4.9 shows what proportion of each sub-group wanted to try each substance. Again, ecstasy stands out as the substance most popular with both BZP using groups (groups 2 and 3). Recent BZP and illicit substance users (group 3) are significantly more likely to want to try ecstasy than

any other group ($X^2(1, n=689)=128.9, p<.001$). This means that group three users are more likely to want to try ecstasy despite also having the largest proportion of users who have *already* used ecstasy. Another significant difference between the two BZP using groups (groups 2 and 3) was that BZP users who also use illicit substances (group 3) were more inclined to want to try LSD ($X^2(1, n=193)=9.3, p=.002$).

There were also significant differences between sub-groups for cocaine, speed, nitrous oxide, Ritalin, Ketamine, GHB, and heroin (all $X^2(1, n=580)>9.2, p's<.05$). These differences can be seen in figure 4.9. For many of the substances, the most obvious difference in proportion of respondents wishing to try a substance was between group three and the other sub-groups. Comparing groups three and four, BZP and illicit users are significantly more likely to want to try ecstasy, LSD, speed, and Ritalin (all $X^2(1, n=197)>5.0, p's<.05$). Respondents who use BZP and illicit substances were more inclined to want to try substances they had not used, even compared to illicit users who had not used BZP.

Benzylpiperazine was the most popular prospective substance for both BZP non-using groups. Not one respondent from groups two or four said they would like to try 'P', while a small, but not significant proportion of groups one and three said they would like to try 'P'.

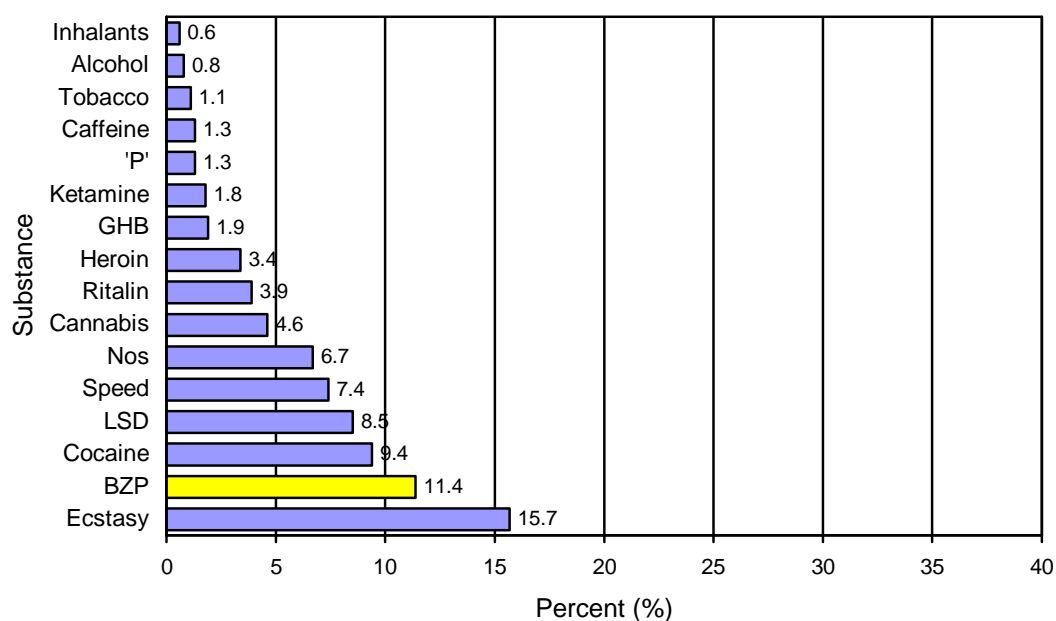


Figure 4.7: Percentage of respondents from entire sample who said they wished to try substances they had not yet used.

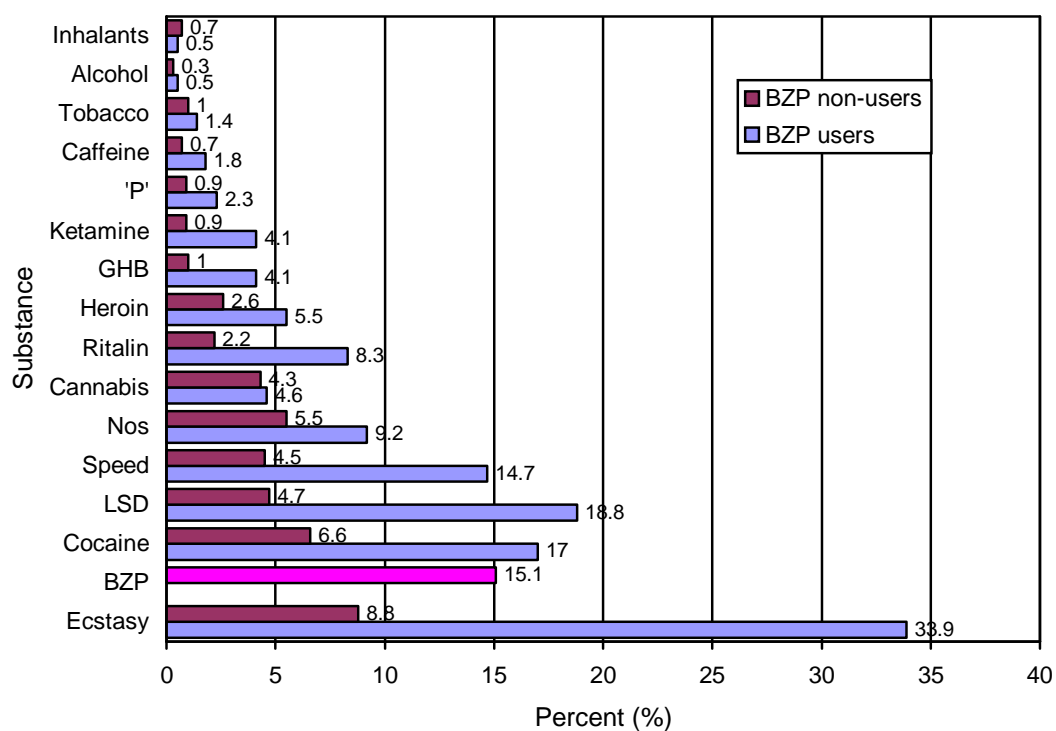


Figure 4.8: Percentage of recent BZP users and non-users who said they wished to try substances they had not yet used.

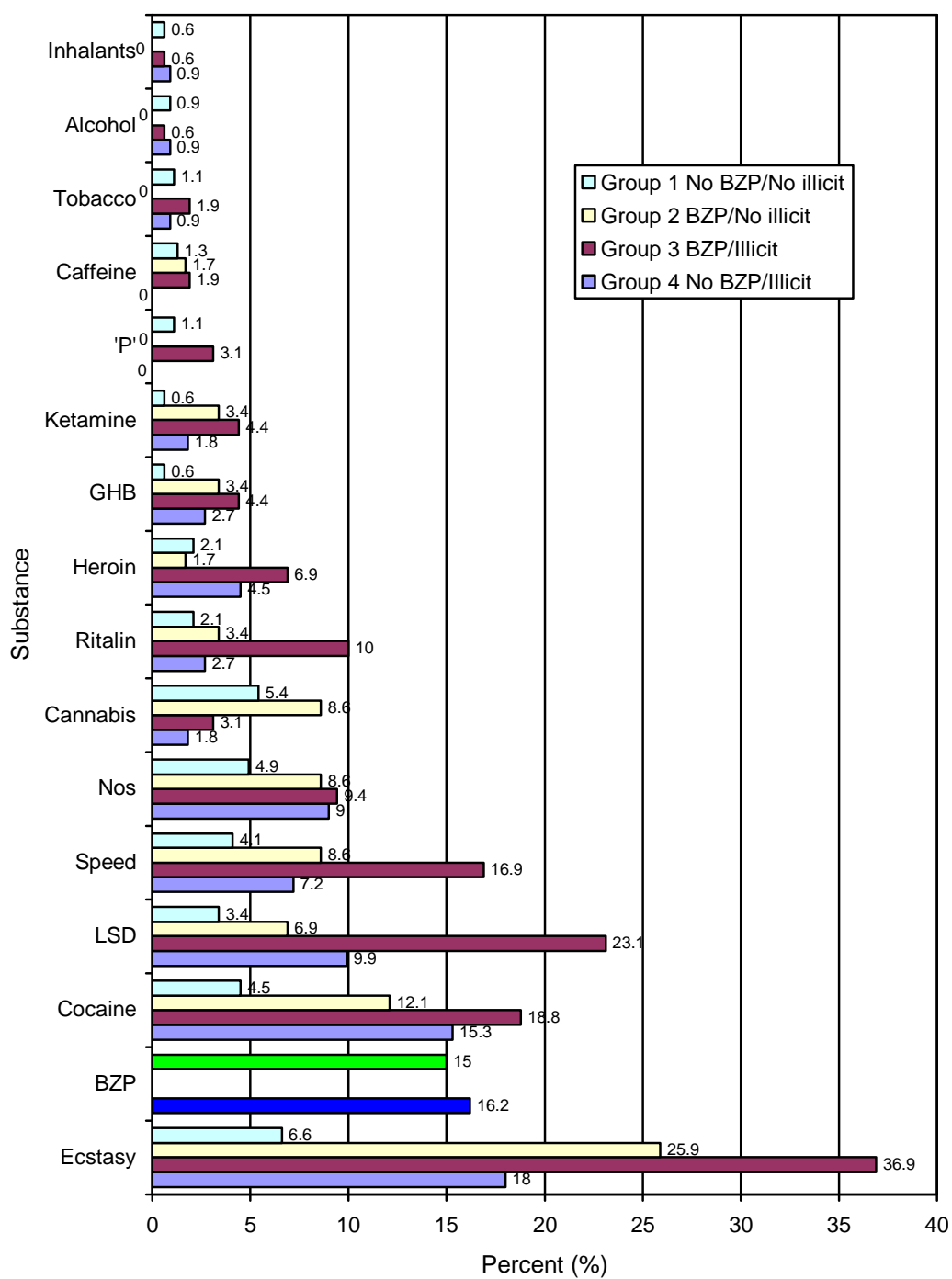


Figure 4.9: Percentage of respondents from each sub-group who had not yet used a substance and would like to try it

Despite the use of party pills, BZP users showed more desire to use illicit substances they had not tried than non-users. Ecstasy emerged as the substance most likely to be used by BZP party pill users who had not yet used it. This finding indicates that BZP party pills do not appear to reduce user's interest in illicit drug use, that is, BZP party pills alone do not satisfy user's substance appetite. This is not to say that BZP party pills make users want to try more drugs, rather, it could be a characteristic of BZP party pill users to be more inclined to want to use a wider variety of substances.

Figures 4.10 and 4.11 below illustrate the *potential* proportion of BZP party pill and illicit substance users (groups 3 and 4) that could use each substance. Adding the percentage of respondents who have not used but wish to try a given substance, to the percentage who have already used that substance gives an indication of what proportion of each group could potentially use a substance in the future. Comparing figures 4.10 and 4.11 it can be seen that potential 'ever use' rates for respondents in group three were at least twice the rate for group four for LSD, ecstasy, speed, and Ketamine, and are three times the rate for Ritalin.

It is clear that respondents from group three who used both BZP party pills and illicit substances are not only more likely to be users of some illicit substances, but were also more likely to want to try illicit substances if they had not already used them. This indicates potentially high future rates of use for this specific group of users for some substances, especially ecstasy, with a potential use rate of 61.9% for BZP and illicit users (group 3).

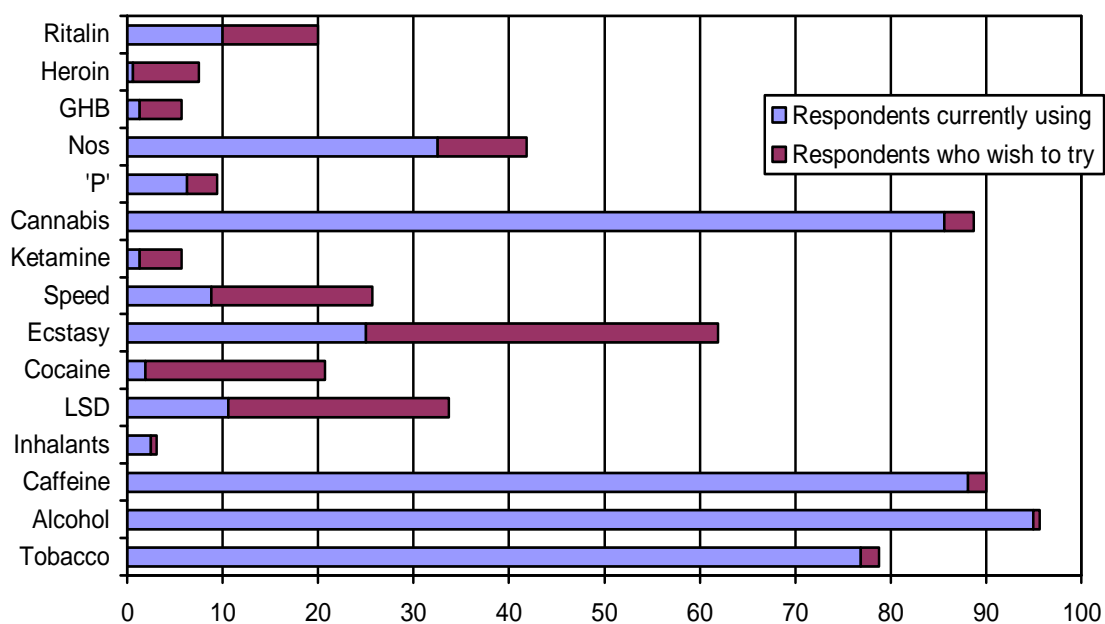


Figure 4.10: Percentage of respondents from group three who already use each substance and the percentage who have not yet used, but want to try each substance.

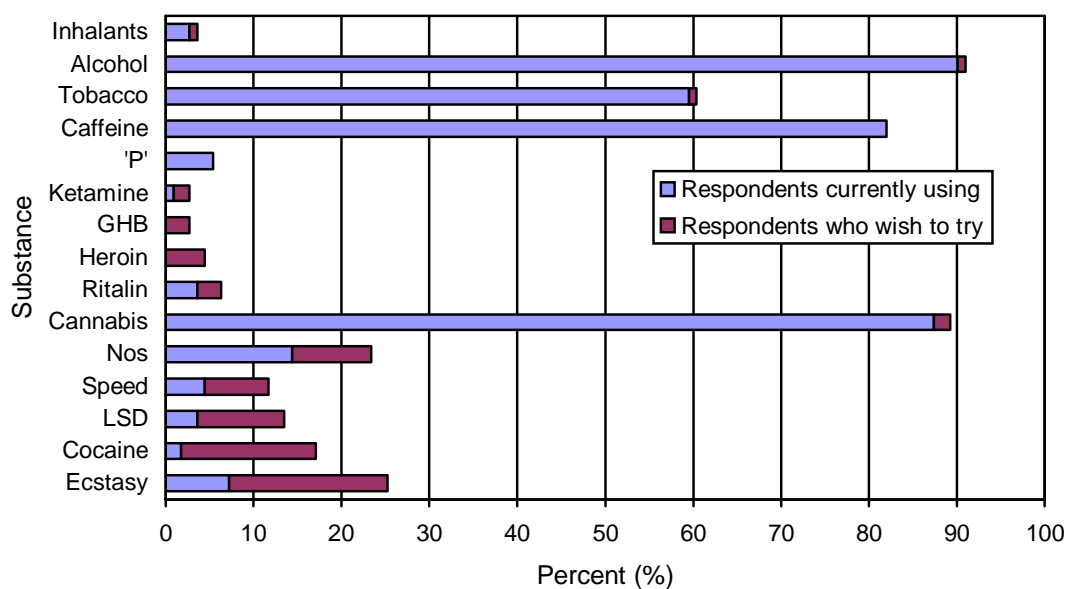


Figure 4.11: Percentage of respondents from group four who already use substances and the percentage who have not yet used, but want to try each substance.

Again, there is no evidence that BZP party pill users were at a reduced risk of substance related harm compared to illicit substance users who had not used BZP party pills. On the contrary, BZP party pill users were more likely to want to try many illicit substances, and were potentially at an increased risk of harm from future substance use.

Substances that respondents said they would never use again or try

Respondents were also asked to indicate which substances they would never use again or try, regardless of whether they had ever used it or not. This question was asked in order to identify which substances were unpopular with BZP party pill users and non-users. Figure 4.12 shows what proportion of the entire sample indicated they would never use again or try substances. The most unpopular substances were 'P' (85.6%) and heroin (82.8%). Forty one point seven percent of the sample indicated they would never use BZP.

When BZP users and non-users are compared, BZP users were significantly less likely to indicate their intention to never use BZP, cannabis, ecstasy, nitrous oxide, tobacco, LSD, speed, Ritalin, GHB, cocaine, Ketamine, inhalants, alcohol, heroin, and caffeine (all X^2 's(1,n=796)>6.6, p 's<.05). In fact, the *only* substance that BZP users and non-users were equally likely to never try was 'P' - BZP users and non-users were equally opposed to ever using it again or trying it.

There were significant differences between the four sub-groups for all the substances investigated (all X^2 's(1,n=796)>8.6, p 's<.05). Figure 4.14 shows what proportion of each sub-group said they would never try each substance. BZP and illicit substance users (group 3) were less likely than the illicit users with

no recent BZP use (group 4) to say they would never use BZP, ecstasy, nitrous oxide, speed, LSD, tobacco, Ritalin, GHB, Ketamine, inhalants, and 'P' (all X^2 's(1,n=271)>4.2, p's<.05). Comparing the two BZP using groups (groups 2 and 3) there were significant differences between BZP users who did and did not use illicit substances. Using both BZP and illicit substances made the respondents significantly less likely to say they would never use ecstasy, cannabis, speed, LSD, tobacco, Ritalin, cocaine, and 'P' (all X^2 's(1,n=218)>4.6, p's<.05).

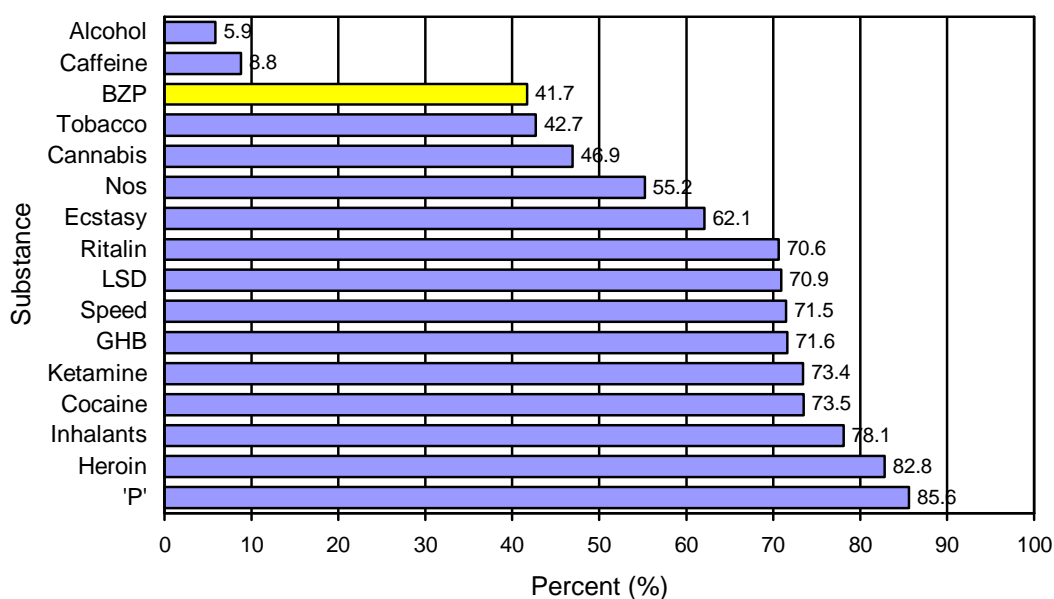


Figure 4.12: Percentage of entire sample that said they would never try or use a substance again.

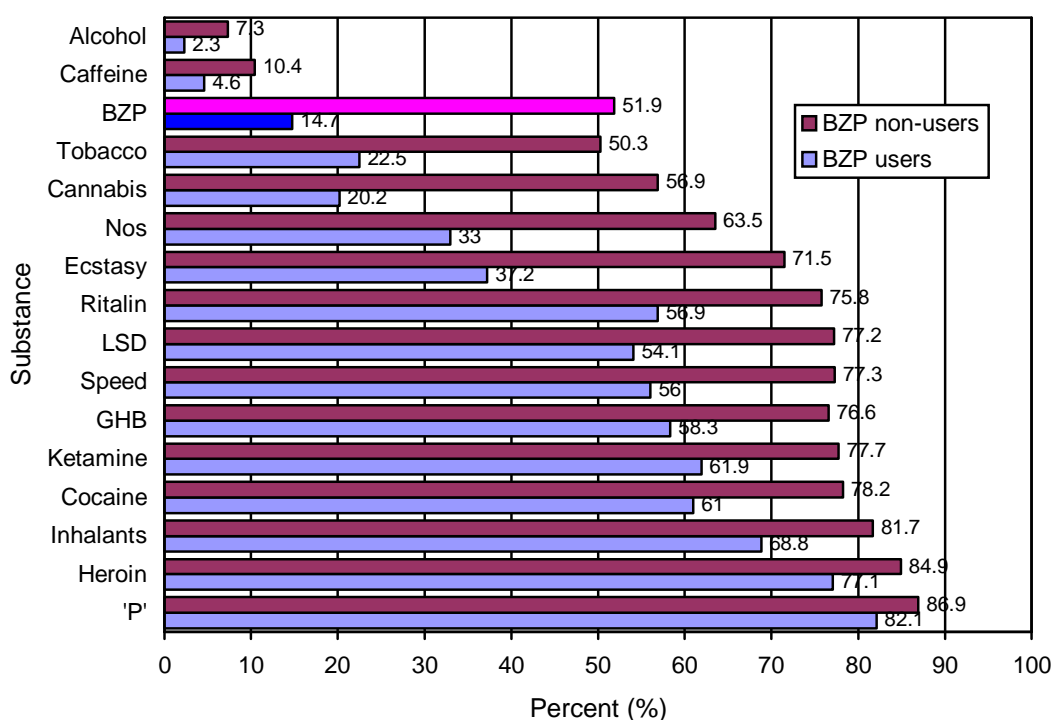


Figure 4.13: Percentage of BZP users and non-users who said they would never try or use a substance again.

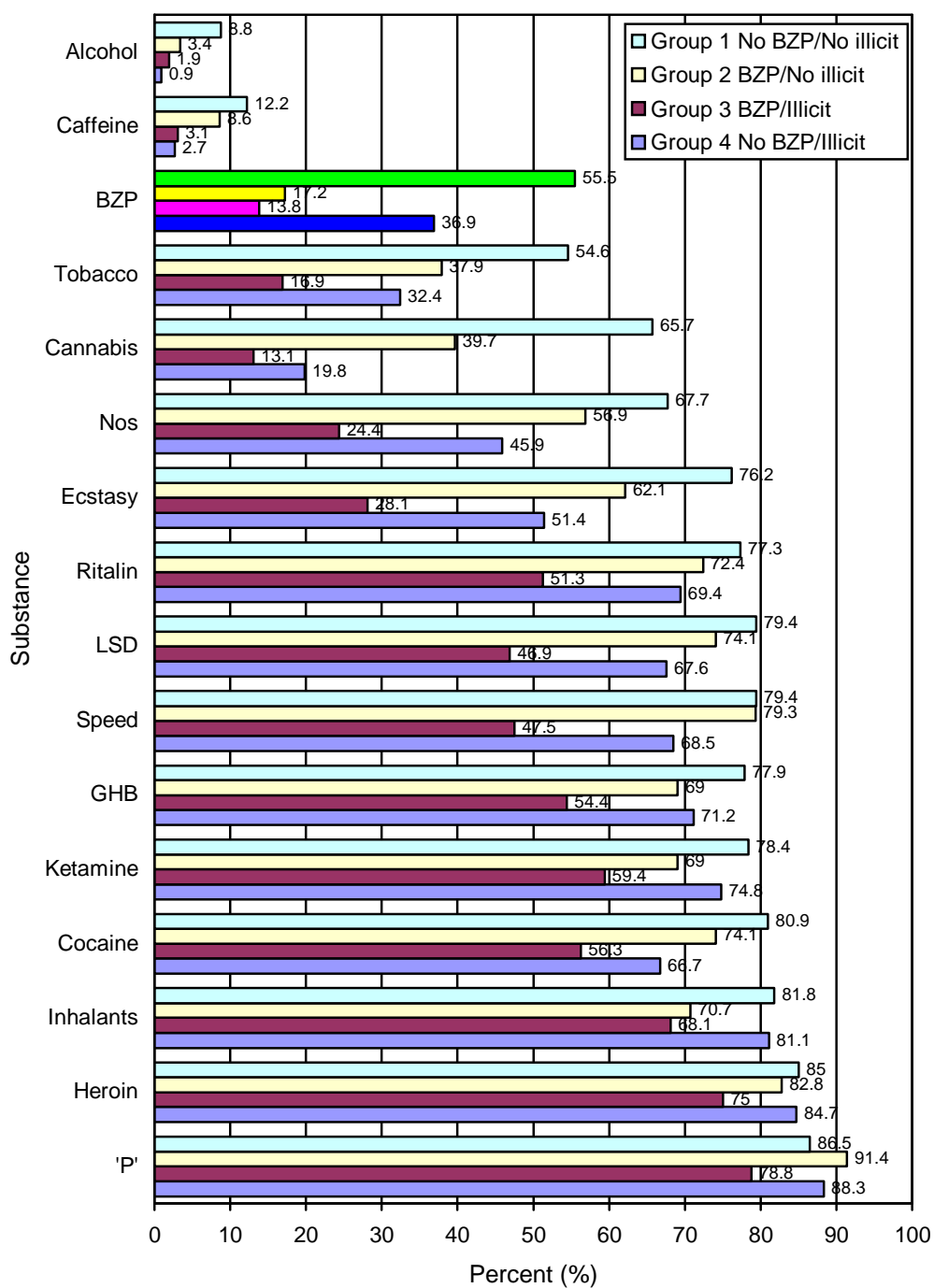


Figure 4.14: Percentage of respondents in each sub-group who said they would never try or use a substance again.

The findings from this question show that BZP party pill users were less inclined to say they would not use a substance again. Benzylpiperazine party pill users seemed to have more of a 'never say never' attitude towards using illicit substances compared to non-users. Benzylpiperazine party pill users in general were just as likely to say they would never use methamphetamine (P) as non-users. However, once BZP party pill users were split into illicit substance using and non-using sub-groups, BZP party pill users who used illicit substances were less likely to commit to never using P, compared to all three other groups.

Knowledge of BZP party pill ingredients

This question aimed to check whether BZP users were aware of what was in the party pills they were using. Respondents were asked to name the active ingredients in party pills if they knew what they were. Of all BZP users almost one in five (19.9%) knew that benzylpiperazine or BZP was the primary active ingredient in party pills. Only one user (0.5%) named trifluoromethylphenylpiperazine (TFMPP) as an active ingredient. Over two thirds (69.3%) of BZP party pill users did not attempt to answer the question at all. Caffeine was named as an ingredient by 1.5% of BZP users, and 1.4% thought horse tranquilizer was a primary ingredient in BZP party pills. The remainder of BZP users (7.4%) named a number of incorrect ingredients such as ecstasy, speed, and rat poison. Some of these respondents named made-up chemicals that resembled BZP, such as BCP or LZP.

Responses to this question indicate that the majority of BZP users have poor knowledge of the ingredients in the party pills they are using. The vast majority of users made no attempt to answer the question, suggesting they had

no knowledge of party pill ingredients. A significant proportion did know that BZP was the primary ingredient, and a small number believed the party pills they were taking contained illegal or poisonous ingredients.

Implications and summary of findings from study 2A

There is no evidence to suggest that BZP party pills were reducing substance use related harm. The majority of BZP party pill users used illicit substances, and used them equally as often as illicit substance users who did not use BZP party pills. They also used a wider variety of substances compared to illicit users who did not use BZP party pills. Benzylpiperazine party pill users demonstrated a desire to try many illicit substances, especially ecstasy. They were also less likely to say they would never use illicit substances. And finally, BZP party pill users had poor knowledge of the ingredients in party pills.

The results of this study indicate that the harm reduction objectives of the BZP party pill industry were not being achieved. As discussed in chapter one, harm reduction should be based on empirical evidence, not ideology and dogma (Tammi & Hurme, 2007). The results of this study do not provide any empirical evidence for reduced harm for BZP users, and therefore no empirical basis for the BZP industries claims of harm reduction. True harm reduction programmes provide more than just 'alternatives' to harmful drug use behaviour. Needle exchange programmes for example provide information, access to treatment, condoms, and support for IDU. All these services are provided for free or for minimal cost, and programmes are not for profit. The BZP party pill industry does not provide any of these other aspects of harm reduction, and are essentially a profit driven industry with competing companies. A further example

is the methadone programme, where 'problem' or 'high risk' opiate users are offered a lower risk alternative to injecting drug use. The BZP industry cannot claim to be offering a similar harm reduction programme to recreational drug users as it makes its product available to anyone, with or without a drug use history. This potentially exposes non-drug users to increased harm from stimulant use they would otherwise not have experienced. Benzylpiperazine as a true harm reduction tool for reducing illicit ATS use would not be sold for profit, would not be available to non-drug users, and would be part of a comprehensive harm reduction programme including access to information, treatments, and support for recreational drug users who want to stop.

There are some limitations to the current study that should be considered. Respondents were asked to recall their drug use over the previous 6 months prior to being surveyed. There is likely to be some variation in the accuracy of recall over this period, however this is a shorter timeframe than most drug survey studies which typically ask about drug use in the previous 12 months (for example: Ministry of Health, 2007; Nicholson, White & Duncan, 1999; Parks & Kennedy, 2004; Wilkins, Girling, Sweetsur, Huckle, & Huakau, 2006). This is a limitation for all retrospective self-report survey studies of this type. In addition, the chronology of drug use has not been accounted for over this time period, and changes in drug use patterns over the six-month period cannot be ruled out. The shorter timeframe of the survey makes this less likely than other studies that rely on reported drug use over a 12 month period, however it is possible that respondents could have started or ceased to use a drug over the six months surveyed. This lends itself to the possibility that over the previous six months

respondents could have 'gatewayed' out of illicit drug use by substituting illicit drugs for BZP party pills. It is also equally likely that respondents could have 'gatewayed' in to illicit substance use over the previous six months, taking up illicit drug use and stopping BZP party pill use. As chronology of drug use behaviour was not accounted for in the current study, it is impossible to tell whether either of these patterns of drug use had happened over the six-month survey period. However the level of interest in trying new illicit substances among the BZP user groups indicates that BZP and illicit drug use are likely to be at least co-occurring, and a pattern of 'gatewaying' out of illicit drug use via BZP party pills is unlikely.

Self-report questionnaire research is a popular psychological research method. Such a method comes with issues around responding such as the honesty of responses, accuracy of recall for events, limited ability to explain questions and responses often limited to short or categorical answers. However the benefits of this method include the ability to recruit large samples, the anonymity of respondents, relatively large amounts of data, it is economical with minimal response times for respondents. The results from study 2 suggest that valid data was collected. Despite the limitations inherent in retrospective survey studies, the data provided valuable information about BZP and other drug use behaviour and attitudes.

Based on the results of this study, there is no justification **on the basis of harm reduction**, for maintaining a legal BZP party pill market in New Zealand. Benzylpiperazine party pills are unlikely to be being used as an alternative to illicit substances; rather they are being used as well as illicit substances.

Benzylpiperazine party pills do not cause these behaviours or attitudes, rather BZP party pill users are a self-selecting group of high risk, poly-drug users. BZP is simply another substance on the poly-drug users menu. Removal of BZP from the legal market place would reduce harm by reducing the number of substances legally available to these users. However the impact of a ban on BZP must also be considered. Although only a quarter of BZP users used party pills and no illicit substances, the outcome of a ban for these users must also be investigated. Study three examines what this impact will be.

**Study 2B: What is the relationship between perceived risk and use
behaviour for BZP and other recreational substances?**

Results and discussion

Perceived risk of using substances

To check how risky BZP party pill use was perceived to be, compared to other substances, respondents were asked to rate how safe or dangerous they felt each substance was on a five-point scale. One was safe, and five was dangerous. Figure 4.15 shows how the entire sample rated each substance. The substances that were perceived to be most dangerous were 'P' and heroin, both scoring an average of four point eight. The illicit substance perceived to be least dangerous was cannabis, scoring an average of three point three. BZP was perceived to be neither safe nor dangerous, with an average score of three.

BZP users and non-users³ rated risk of substance use differently. When perception of risk across all substances is compared for BZP users and non-users using mixed factor 2(BZP vs non-BZP) x 16(substance) MANOVA, BZP users rate substance use as significantly less risky than BZP non-users ($F(15,9045)=8.8$, $p<.001$).

When individual substances are examined BZP users rated BZP, cannabis, ecstasy, nitrous oxide, caffeine, LSD, speed, tobacco, and Ritalin as significantly safer than BZP non-users did (all t 's(719) >3.3 , $p<0.003$ for bonferoni correction). BZP users perceive substance use to be less dangerous than respondents who do not use BZP. Figure 4.16 shows these differences on page 117.

When risk perception ratings for the four sub-groups are examined, users of BZP and illicit substances (group 3) perceived the risk of substance use in general, as significantly safer than the other three groups ($F(45,9015)=7.2$, $p<.001$). Specifically, post-hoc tests indicated that group three rated substances (on average) less risky than all other groups ($p<.05$).

Looking at ratings of individual substances, group three rated cannabis, nitrous oxide, BZP, ecstasy, Ritalin, caffeine, speed, tobacco, LSD, GHB, and Ketamine significantly safer than at least one other group (all F 's (3,674) >3.7 , p 's $<.05$). These differences can be seen in figure 4.17 below.

³ Study 2B used the same sample and sub-groups as 2A.

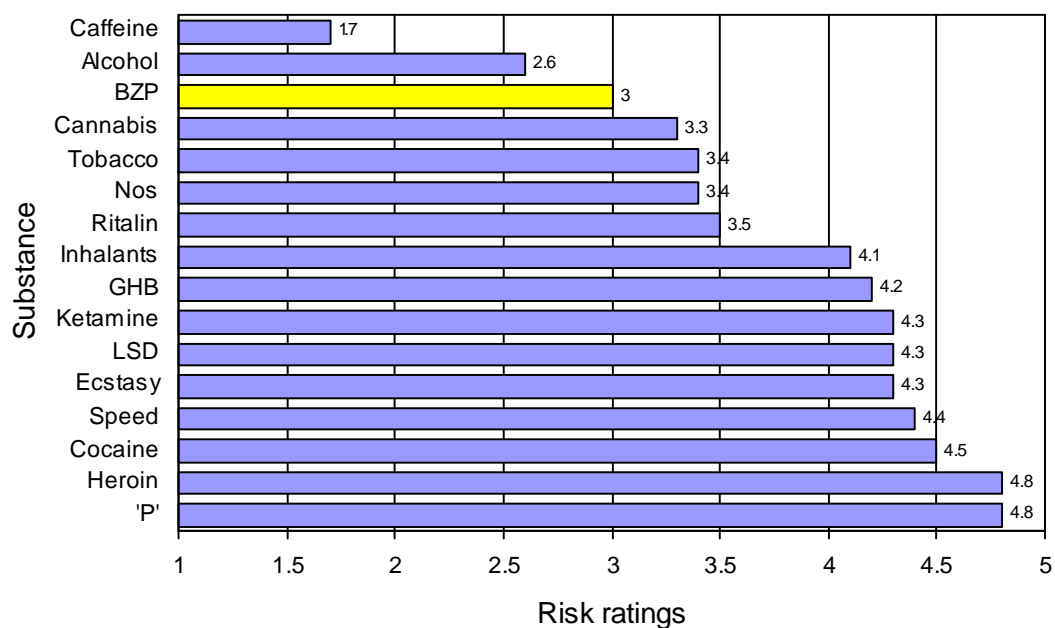


Figure 4.15: Mean ratings of risk of using substances for entire sample.

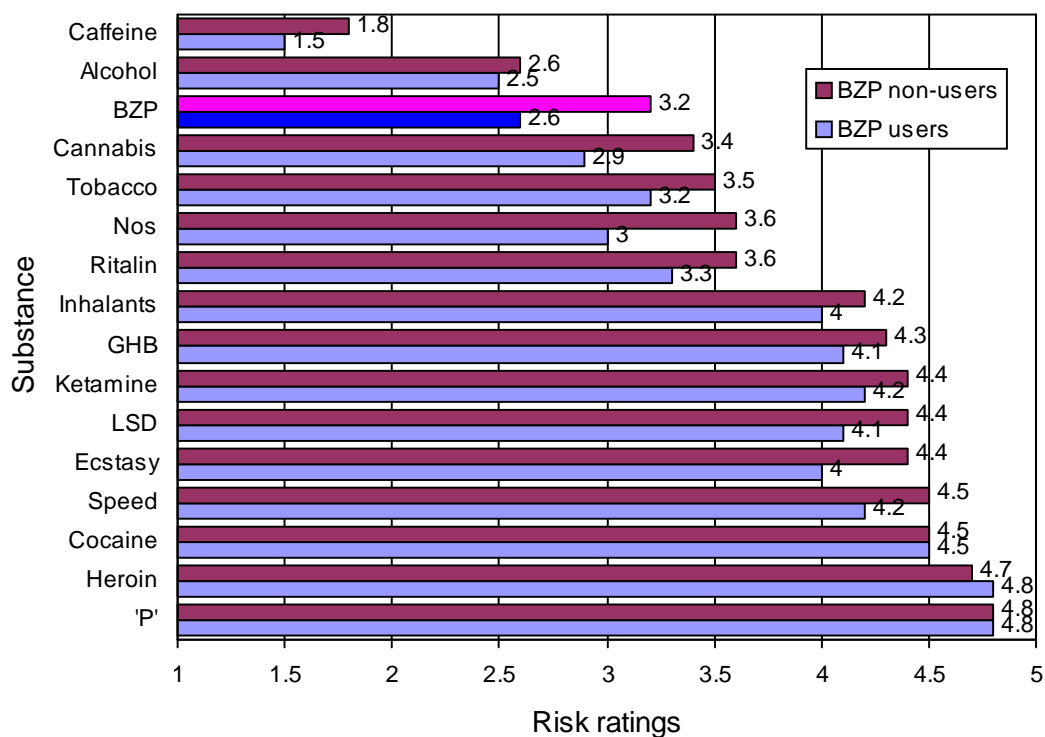


Figure 4.16: Mean ratings of risk of using substances for current BZP users and non-users.

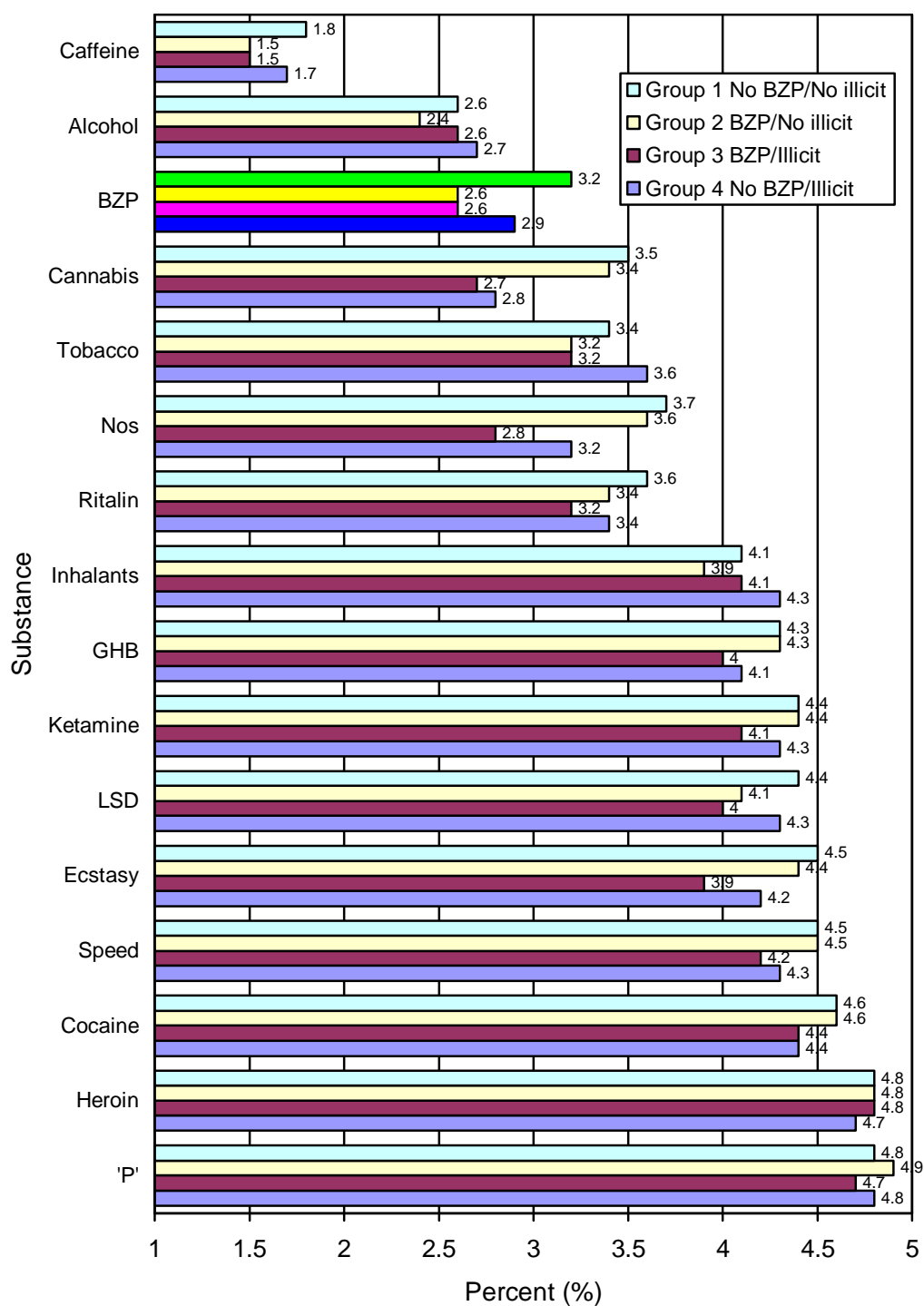


Figure 4.17: Mean ratings of risk of using substances for participants in each sub group.

Benzylpiperazine party pill users perceive less risk involvement for substance use than non-users⁴. Initially it could be implied that BZP party pill users are at increased risk of substance related harm, as they are more likely to underestimate the negative effects of substance use. However, there is evidence that recreational drug user assessments of risk are accurate, and tend to be similar to empirical evaluations of risk (Gamma et al., 2005; Kelly, 2005; White et al., 2006). Group three are the most experienced drug using group in the sample, and their reduced perception of risk compared to other groups might not be an underestimation. Two alternative explanations might apply. First, substance users from group three might be accurately assessing the risk of substance use. Other groups with less experience and knowledge of various substances could be overestimating risk. Secondly, it is impossible to know whether participants from group three are taking harm reduction strategies into account when they assess the risk of using a substance. Research shows that recreational drug users are generally aware of harm reduction strategies such as appropriate levels of hydration and sober buddies accompanying users to events, and regularly employ them when using substances (Allott & Redman, 2006; Gamma et al., 2005; Johnston et al., 2006; Murphy, Wareing, & Fisk, 2006; Panagopoulos & Ricciardelli, 2005; Shewan, Dalgarno, & Reith, 2000). If participants from group three were evaluating their personal risk of harm from using a substance, knowing that they use harm reduction strategies, their ratings of risk would be diminished. Use of harm reduction strategies such as not

⁴ It would have been interesting to analyse risk perception and the quantity of BZP used. However BZP users tended not to know what doses of BZP they used on each occasion. This was also evident in the qualitative interviews in studies 3A and 3B.

drinking alcohol, taking recommended doses, following instructions, not mixing with other drugs and food and water intake would need to be measured or controlled for to examine how much they could account for reduced evaluations of risk of substance use.

BZP was perceived to be safer than all the illicit substances. This could be an artifact of its legal status, or because it is the only substance where the user can be assured of its ingredients.

Factor analysis

An exploratory factor analysis was conducted on the risk perception data to examine how participants assess risk for different substances. The data was deemed suitable for factor analysis with a Kaiser-Meyer-Olkin measure of sampling adequacy score of .891 and Bartlett's test of sphericity $X^2(120)=3630.65, p<.001$.

Principal components analysis generated a three factor solution based on Kaiser's criterion where factors with eigenvalues over one are included in the solution (Giles, 2002). An Oblimin rotation was used as a degree of relationship between factors was expected, and values less than .30 were suppressed (Giles, 2002). Three factors with eigenvalues over one cumulatively accounted for 55.4% of the variance (Table 4.3). However factor three had poor reliability with a Cronbach's alpha of .56. Perceived risk of P and heroin loaded onto factor three. This factor, had it been reliable, might have represented substances associated with extreme danger. Caffeine negatively loaded onto this factor, and LSD and inhalants cross loaded with factors one and two, respectively.

Table 4.3.
Three factor solution for perceived risk of substance use

	Component		
	Factor 1	Factor 2	Factor 3
Ecstasy risk	.87		
Speed risk	.83		
Ketamine risk	.72		
Cannabis risk	.70		
Cocaine risk	.66		
Nitrous oxide risk	.65		
GHB risk	.62		
Ritalin risk	.47		
LSD risk	.46		.38
Alcohol risk		.78	
Caffeine risk		.67	-.41
Tobacco risk		.65	
BZP risk		.61	
Inhalant risk		.56	.51
P risk			.64
Heroin risk	.38		.55
Eigenvalues	5.68	2.09	1.09
Variance (%)	35.50	13.07	6.84
Cronbach's Alpha	.86	.70	.56

Absolute values less than .30 were suppressed.

Examination of the scree plot (Figure 4.18) revealed that a two factor solution might be appropriate (Giles, 2002). The analysis was repeated, this time forcing a two factor solution (Table 4.4). Only 48.6% of the variance is

accounted for in a two factor solution, however both factors have good reliability with Cronbach's alphas of .85 and .78.

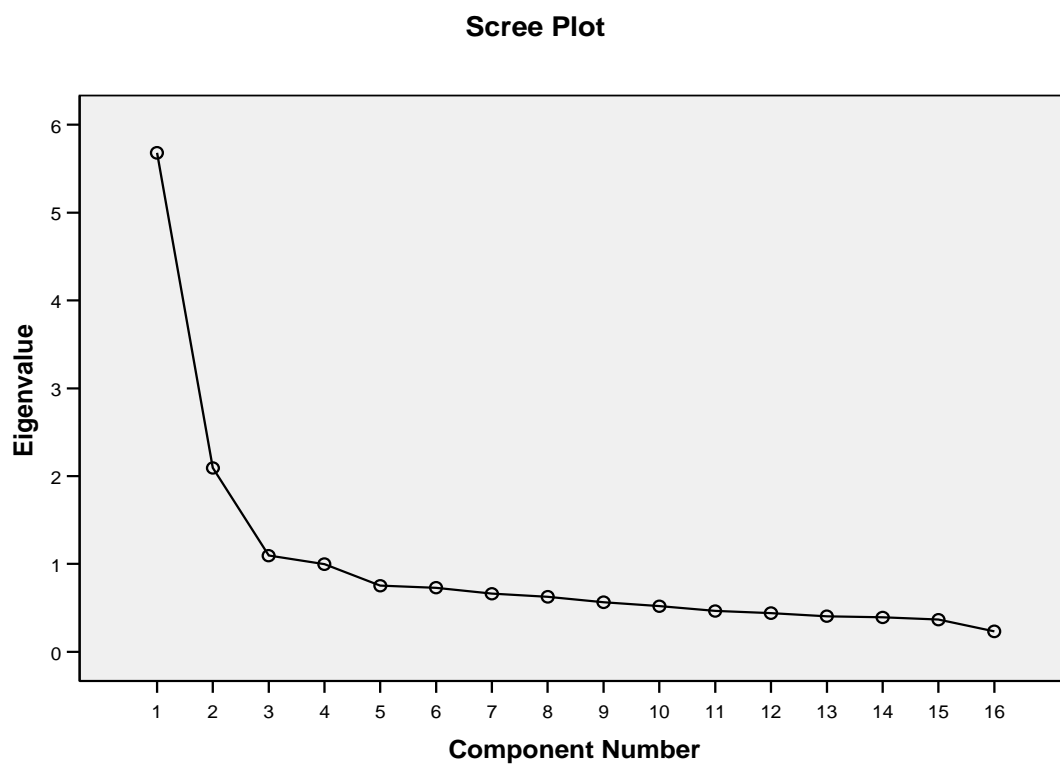


Figure 4.18. Scree plot of Eigenvalues for each factor for perceived risk of substance use.

Table 4.4.

Two factor solution for perceived risk of substance use.

	Component	
	Factor 1	Factor 2
Speed risk	.78	
Ecstasy risk	.73	
Cocaine risk	.73	
Heroin risk	.72	
P risk	.67	
Ketamine risk	.67	
LSD risk	.65	
GHB risk	.59	
Ritalin risk	.43	
Inhalant risk		
Caffeine risk		.86
Alcohol risk		.75
BZP risk		.73
Cannabis risk	.36	.53
Tobacco risk		.51
Nitrous oxide risk	.37	.49
Eigenvalues	5.68	2.09
Variance (%)	35.50	13.07
Cronbach's Alpha	.85	.78

Absolute values less than .30 were suppressed.

Based on factor reliability, a two factor solution was accepted. The two factor solution provided a clear and practical picture of how the risks of substance use are perceived. The most obvious interpretation of the factors is

that they are differentiated by the legal status of the substances. Factor one represents illegal substances, while factor two represents legal substances. Interestingly, cannabis and nitrous oxide crossload onto both factors, and despite being illegal, both load more strongly on factor two. Perceived risk of inhalant use does not load onto either factor, which may indicate that something other than legal status is considered when assessing the risk of inhalant use. This seems intuitive, as substances such as glue, spray paint, and aerosol cans are household items usually purchased for legitimate purposes other than ingestion. Inhalants are the only substances in the study that have an alternative, perfectly legal use, but are perceived to be very dangerous when abused. This juxtaposition between legal status and risk might make inhalant use qualitatively different to other substances.

The two factor solution for risk perception appears to indicate that legal status is an important consideration when assessing how dangerous a substance is. The legal status of the two substances that crossload onto both factors (cannabis and nitrous oxide) could be described as ambiguous. The legal status of cannabis had long been debated in New Zealand, with political parties such as the Aotearoa Legalize Cannabis Party and lobby groups like NORML working to increase public debate about the issue. The legal status of nitrous oxide changed in 2005 when it became illegal to purchase without prescription. A recent change in the legal status of a drug might lead people to rationalize that if it was previously legal it must not be very dangerous.

The two factors might also represent exposure to substance use. The substances in factor two are the six most commonly used by the sample.

Exposure to a substance does not necessarily imply use. Rather, the more common a substance is, the higher the likelihood that a non-user has been exposed to its use by others. Therefore, exposure to substance use can be direct, meaning an individual has personally experienced use of the substance, or indirect, meaning that a non-user has personal experience or knowledge of other peoples substance use. People might think differently about the risks of substances they have been exposed to compared to substances they have not.

Exposure to substance use is closely related to the legal status of a substance. To some extent, the legal status of a substance will dictate levels of exposure in the population. Legal substances are more readily available than illegal ones, resulting in greater rates of use and therefore higher levels of exposure. The factors extracted for the perceived risk of substance use appear to be defined by the closely related constructs of legal status and exposure. Factor one consists of illegal substances that individuals are least likely to have been exposed to. Factor two consists of all the legal substances and the two most commonly used illegal substances. Participants in the sample are more likely to have been exposed to use of substances in factor two.

As a commonly used legal substance at the time of surveying, BZP party pills load on factor two with the other legal substances. As one of the more commonly used substances, it would be expected that exposure to BZP party pill use would be relatively high for this sample. The psychoactive effects of a substance appear to be less important than legal status and individual levels of exposure when assessing risk. Benzylpiperazine is a psycho-stimulant drug similar to amphetamine, methamphetamine, and when combined with TFMPP,

ecstasy (Campbell et al., 1973; Brennan et al., 2006; Baumann et al., 2005, respectively). However, when judging whether BZP is dangerous or not, it's similarity to these illegal substances is superseded by the fact that it is legal and commonly used. When assessing risk, participants think of BZP party pills in similar ways to caffeine, alcohol, cannabis, tobacco, and nitrous oxide.

To further investigate the role of legal status and exposure on participants attitudes towards risk and drug use, factor analyses were conducted for substances participants stated they would never use again or try. Despite the dichotomous nature of the 'never use' variable, the sample is sufficiently large to eliminate any instability in the analysis (Giles, 2002). The same methods reported above for the risk perception factor analysis were employed for analyzing substances participants said they would never use.

The data was deemed suitable for factor analysis with a Kaiser-Meyer-Olkin measure of sampling adequacy score of .94 and Bartlett's test of sphericity $X^2(120)=6732.76$, $p<.001$. Similarly to the perceived risk factor analysis, a three factor solution was initially extracted. However, for the 'never use' factor analysis the scree plot clearly indicated a two factor solution would be appropriate (Figure 4.19). In addition, two factors alone accounted for 56.4% of the variance, and the third factor was unreliable, with a Cronbach's alpha of .52. The analysis was repeated, this time forcing a two factor solution (Table 4.5).

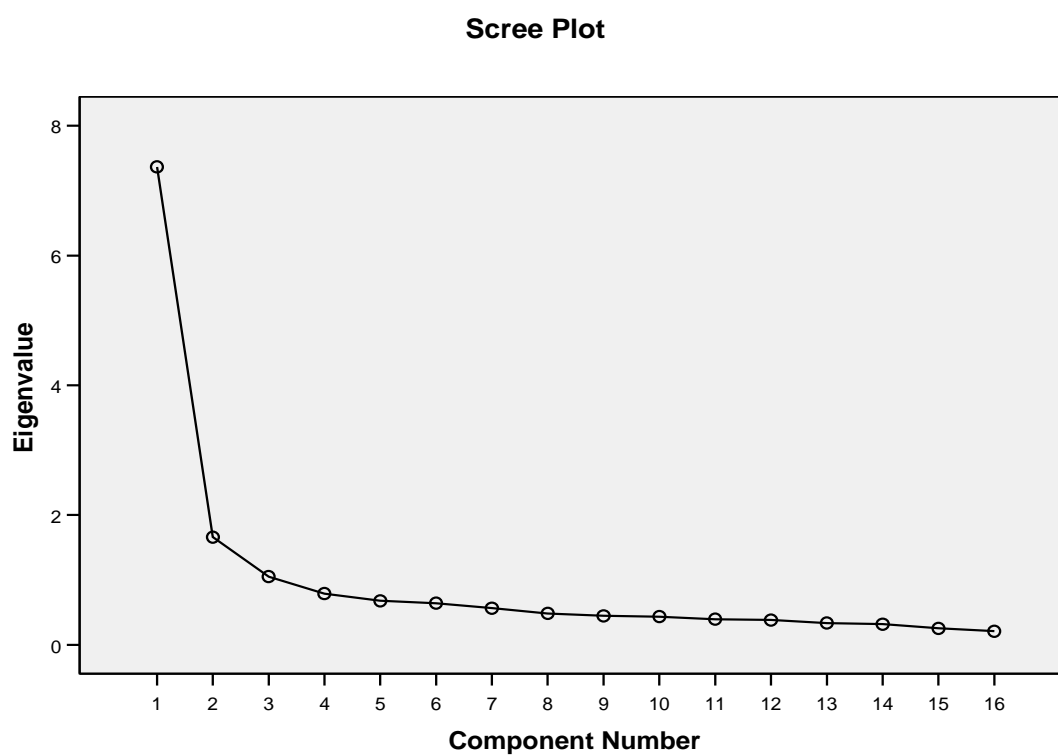


Figure 4.19. Scree plot of Eigenvalues for each factor for substances participants say they will never use again or try.

Table 4.5.

Two factor solution for substances participants say they will never use again or try.

	Component	
	Factor 1	Factor 2
Never use heroin	.84	
Never use GHB	.83	
Never use Ketamine	.83	
Never use Ritalin	.78	
Never use inhalants	.78	
Never use P	.77	
Never use cocaine	.76	
Never use LSD	.73	
Never use speed	.72	
Never use ecstasy	.60	.33
Never use Nitrous oxide	.50	.39
Never use alcohol		.65
Never use tobacco		.63
Never use caffeine		.61
Never use BZP		.61
Never use cannabis	.34	.59
Eigenvalues	7.37	1.66
Variance (%)	46.03	10.37
Cronbach's Alpha	.93	.70

Absolute values less than .30 were suppressed.

A pattern similar to that described for risk perception was found when substances participants said they would never use were factor analyzed. The

factors again appear to be defined in terms of legal status and exposure to use. Factor one consists predominantly of less frequently used illegal substances, while factor two are more commonly used, mostly legal substances. The illegal substances ecstasy, cannabis, and nitrous oxide crossload on to both factors. Cannabis loads most heavily on factor two, while nitrous oxide and ecstasy load more heavily on factor one. Ambiguity of legal status, as discussed above, could contribute to the crossloading of cannabis and nitrous oxide. However, the crossloading of ecstasy (a substance whose legal status could not be considered ambiguous) indicates that exposure to use might be contributing to participants' decisions not to use a substance. Ecstasy is the next most commonly used substance after nitrous oxide for this sample. The seven most commonly used substances load on factor two (though ecstasy and nitrous oxide load more heavily on factor one), regardless of legal status. When deciding whether to never use a substance or not, participants might be thinking about their previous exposure to that substance. Factor two might represent substances participants are more likely to have come into contact with in the past. Factor one represents substances that are used by less of the sample, so participants are less likely to have been exposed to use. According to the factor analysis, when deciding whether to use a substance in the future or not, participants appear to think about their previous exposure to the substance, which is closely related to its legal status.

The relationship between perceived risk and substance use

To examine the relationship between risk perception and substance use, ratings of perceived risk were correlated with frequency of use for recent users of each substance. Perceived risk and frequency of use were significantly negatively correlated for tobacco, alcohol, caffeine, and cannabis (Table 4.6), indicating that increased risk perception is related to decreased frequency of use for these substances. For all other substances there was no significant relationship between risk and frequency of substance use, indicating that increased awareness of risk is not related to reduced rates of use for LSD, cocaine, ecstasy, speed, Ketamine, P, BZP party pills, nitrous oxide, inhalants, and Ritalin. There were too few recent users of GHB and heroin to conduct the analysis for these substances.

Table 4.6.

Perceived risk by frequency of use correlations for current substance users.

Substance	Risk x Frequency of use correlation		N
	Pearson Correlation	Significance (2-tailed)	
Tobacco	-.11*	.04	342
Alcohol	-.12**	.00	675
Caffeine	-.14**	.00	604
BZP	-.06	.36	214
Inhalants	-.24	.43	13
LSD	-.43	.05	21
Cocaine	.12	.88	4
Ecstasy	.12	.44	47
Speed	-.10	.69	19
Ketamine	-.98	.12	3
Cannabis	-.29**	.00	227
'P'	-.11	.70	15
Nitrous oxide	.07	.58	68
GHB	.	.	2
Heroin	.	.	1
Ritalin	-.40	.08	20

*= $p < .05$, **= $p < .01$

Identifying why a relationship exists for some substances but not others could help to explain the nature of interactions between risk perception and substance use. There are several possible explanations for why a relationship would exist for some substances but not others. Tobacco, alcohol, cannabis, and caffeine are the four most commonly used substances, and are used most frequently by the sample (the rate of inhalant use is higher than that of cannabis, however this is the result of a small number of heavy inhalant users in the

sample). The substances for which there were no significant relationships between risk perception and frequency of use, tend to be those typically thought of as recreational drugs. They are used less frequently than tobacco, alcohol, cannabis, and caffeine, suggesting a floor effect in frequency of use might exist for these substances. A floor effect means that substance use is already infrequent, so there is less opportunity to reduce frequency of substance use in relation to increased risk perception. Likewise, if we understand that the relationship between risk perception and use behaviour is reciprocal (Gerrard et al., 1996), rates of use for these substances might not be high enough to impact risk perception.

We know that the absence of a significant relationship between risk and frequency of use is not due to a lack of risk awareness, as users rated the risk of using many of the substances towards the dangerous end of the scale.

Frequency of substance use and risk might not have been related for some substances because decisions to use a drug are not based solely on risk assessments. Substance users engage in cost-benefit analysis when deciding to use a drug (Duff, 2003; Hunt et al., 2007; Shewan, Dalgarno, & Reith, 2000). A substance is used when the benefits outweigh the costs or risks. Measurement of the relationship between risk and frequency of use must take the benefits of substance use into account. If a high-risk substance is also perceived be highly beneficial, the relationship between risk and frequency of use will be weakened, as the benefits of substance use effectively neutralize the risks. For the substances in this study that did not show a significant relationship between risk and use, there might be perceived benefits of infrequent use. The combination of

benefit perception and infrequency of use for these substances could explain the non-significant relationship between risk and use.

Substance users might also be managing the risks around use of these substances, further weakening the relationship between risk and rates of use. Brewer et al.'s (2004) model of risk perception and preventive behaviour (figure 1.0), demonstrates that risk perception can be affected by preventive behaviour or harm reduction. Such a relationship might have implications for the relationship between risk perception and risk behaviour. If use of harm reduction strategies can influence risk perception, this might in turn affect how risk perception and substance use relate to each other. Use of harm reduction strategies might relieve some of the risks of substance use so that users do not feel the need to reduce their frequency of substance use. As harm reduction strategies were not measured or controlled for in this study, it is impossible to know whether they contributed to the non-significant relationship between use and perceived risk for some substances.

It is useful to look at the substances for which a relationship between risk perception and frequency of use does exist. Tobacco, alcohol, cannabis, and caffeine are substances for which harm reduction practices are either irrelevant (caffeine and cannabis), or centered around use reduction (tobacco and alcohol). For these substances, decreasing the frequency of use could be a primary method for reducing harm. Resnicow, Smith, Harrison, and Drucker (1999) suggested that students in their study moderated their cigarette and cannabis use in an effort to reduce harm. It is possible that in the absence of other harm reduction options, substance users with higher risk perception choose to use the

substance less often in an attempt to reduce their risk of harm. This could explain the negative relationship between risk perception and frequency of use for tobacco, alcohol, cannabis, and caffeine.

In summary, the existence of a significant relationship between risk perception and frequency of substance use for some substances but not others could be explained by several factors. High rates of use for tobacco, alcohol, cannabis, and caffeine mean that there is 'room' for low frequency users on the spectrum of frequency of use. These lower frequency users perceive greater risk associated with these substances. Other recreationally used substances are already used infrequently, effectively creating a floor effect in rates of use. Regardless of how risky use is perceived to be, significantly reducing the frequency of use might only be achieved through abstinence. The benefits of substance use might be neutralizing the impact of perceived risk. Risk is unlikely to be the only factor relevant in the decision to use a drug or not. The relationship between risk and use would be weakened by user's cost-benefit analysis of drug use. Management of risk through harm reduction could also weaken a relationship between perception of risk and drug use. A user does not need to reduce the frequency of drug use to avoid the risks if there are other strategies that make them feel safe while using drugs. And finally, reducing the frequency of use could be a harm reduction strategy for the more frequently used substances tobacco, alcohol, cannabis, and caffeine, helping to explain the existence of a significant relationship between perceived risk and frequency of use for these substances. It is likely that a combination of these explanations best describes the results of the analysis. Study three (chapter 5) will examine

the ways in which BZP party pill users construct risk, and how costs and benefits of use are weighed up. This should further understanding of the relationship between risk perception and drug use.

General discussion

Benzylpiperazine party pills do not appear to be associated with reduced illicit substance use. This is not to say that BZP party pills cause people to use illicit substances, rather that BZP party pill users tend to be a self-selecting group of recreational poly-drug users. These users are not opting to use BZP party pills as an alternative to illicit substances, BZP party pills are simply an additional item on their substance menu. Limiting the availability of BZP party pills (by banning them, for example) might reduce the risk of harm to recreational drug users, by reducing the number of substances legally available to them. Conversely, user's risk of harm might be increased if they choose more harmful alternatives to BZP after a ban, as has been suggested by representatives of the BZP party pill industry (Barnett, 2007; Bowden, 2005, 2007b; Drought, 2007; New Zealand Press Association, 2007; Thompson, 2006). Study three qualitatively examines this issue. Regardless of the outcome of a ban, if BZP party pills are not fulfilling their purpose as a harm reduction tool, the issue becomes whether it is socially acceptable to have a stimulant type substance legally available for sale. The intensity of the debate around BZP party pills suggests that this was a contentious issue (Bowden, 2005; Chalmers, 2007; Chalmers, 2006; du Chateau, 2007; The Dominion Post, 2007).

The legal status of a substance appeared to be a consideration when participants assessed the risks of use. The risk of BZP party pill use was rated in

similar ways to other legal substances, and indicates that BZP's legal status might offer users an assurance of safety. Like many other substances, there was no significant relationship between perceived risk and frequency of use for BZP party pills. It is possible that participant's ratings of risk are dependent on the availability of harm reduction strategies. Participants might manage the risks of use through harm reduction rather than reducing their frequency of use. The way BZP party pill users assess the risks of BZP use is examined in more detail in study three.

There are some limitations to the current study. The survey tool used was designed to be as brief and simple as possible in order to elicit honest answers and facilitate completion of the entire survey. This design focus came at the cost of providing respondents with detailed explanations of each question. This issue primarily affects the risk rating scale question where respondents were required to self-define the meaning of safety and dangerousness around use of each substance. Respondents were free to interpret safety in any way, and may have considered the personal risks to their health, the legal risks of illicit substance use, the financial costs of drug use, or any other potential risk to themselves or others. The term 'risk' is used to describe this scale as it encompasses all possible interpretations of the safety or dangerousness of substance use. This variety of possible interpretations should be kept in mind when considering the results of this study.

In the survey respondents were asked about their attitudes and behaviours around 'herbal highs/party pills'. This question was interpreted to reflect use of party pill products containing BZP. It is acknowledged that a small

number of BZP-free 'herbal high/party pill' products existed at the time this research was undertaken and respondents may have used these products rather than BZP party pills. This possible confounding factor was an unavoidable consequence of withholding ingredient information in the survey in order to assess respondent's knowledge of party pill ingredients. It should also be noted, however, that the term 'party pill' should have excluded smokeables from respondent's interpretation of the question, and that BZP-free party pills and smokeables were uncommon products at the time the research was conducted.

Another limitation of the current study is inherent in much survey based psychological research. Respondents are not provided the opportunity to explain the reasons behind their responses and complex issues are often simplified to a single yes/no or numerical answer. It is for this reason that the current study was followed up with a qualitative investigation that sought to explore some of these quantitative results in more detail (see chapter 5).

The survey also required respondents to recall the number of times they had used a substance in the past six months. Despite being prompted as to the number of days and weekends in a six-month period, respondents might still have found it difficult to recall substance use occasions accurately. It was for this reason that a six-month rather than 12-month timeframe was selected for the current study, as it was assumed that recall would be more accurate over a shorter period of time.

The results from study two indicate that a ban of BZP party pills is justified on the basis that they fail to reduce illicit substance use, and that their legal status might be causing users to underestimate the risks of use. Study three will

address the possible consequences of a BZP ban from the perspective of regular users with the aim of identifying likely alternatives to BZP party pills. Study three will also investigate how users manage the risks of BZP party pill use, and how they construct the costs and benefits of BZP party pills.

Chapter Five

Potential ban outcomes and cost-benefit analysis of substance use

Study 3A: What are the consequences of banning BZP party pills from the perspective of regular users?

Introduction

The results from study two justified the removal of BZP from the legal market place on the basis that BZP party pills were not serving their intended purpose in terms of reducing substance use related harm. In study two there was no evidence to suggest that users of BZP party pills used illicit substances less frequently than non-users. It is important to understand the consequences of banning a substance however, in order to prepare for possible outcomes.

The BZP party pill industry claimed that banning BZP party pills would lead to an increase in illegal drug use, especially methamphetamine (P) use (Barnett, 2007; Bowden, 2005, 2007b; Drought, 2007; New Zealand Press Association, 2007; Nippert, 2007; Thompson, 2006). This study aimed to identify what alternatives BZP party pill users would consider if BZP party pills were no longer legally available. It also clarifies some of the findings from study two; specifically participants were asked about how they currently use BZP party pills in relation to other substances, and about the risks of using BZP party pills.

This study used qualitative structured interviews with regular BZP party pill users from the general population. Qualitative research provides rich data, allowing participants to fully explain their responses. This method of research was chosen for this study as participant's reasons for choosing their BZP party pill alternatives are just as important as the choice itself. Though it is not

possible to know how representative this sample is of the entire BZP party pill using population, the large number of interviews from a broad range of users ensures that the sample represents a variety of user perspectives. Butler and Sheridan's (2007) study of BZP party pill users in Auckland, was the first to qualitatively describe BZP party pill use in New Zealand (see chapter two). The current study aimed to build on that research by sampling across multiple cities, and focusing on how BZP party pill users planned to respond to the ban of BZP party pills. This study had ethical approval from Victoria University's School of Psychology Human Ethics Committee.

Method

For study three, 60 regular BZP party pill users were interviewed either face-to-face or over the phone during May – July 2007. Participants were recruited using A4 posters and business card sized fliers that were distributed through BZP party pill retail outlets and university campuses in Auckland, Wellington, and Christchurch. Some participants also contacted the researcher after one participant posted the research information on a popular dance party website. Potential participants contacted the researcher by calling, texting, or emailing her on a dedicated phone number and email address.

Potential participants were screened at first contact. Those who called directly were screened immediately. Those who emailed were screened via email and their contact number was requested with permission to call them at an agreed time for an interview. Potential participants who texted were sent a text reply asking for their consent to be called back on the number they were texting from. Once consent was obtained the participant was called immediately and

screened verbally over the phone. Confidentiality was explained, and participants were required to be at least 18 years old as this was the legal age for purchase of BZP party pills at the time of the research. Participants must also have used BZP party pills in the last six months so that their responses related to recent experiences relevant to the current BZP party pill market. Participants involved in the party pill industry were not excluded from the study, as their perspectives are part of the debate around BZP. Two participants (interviewees 32 and 34) worked in the BZP party pill industry, both as retail sales people for a BZP party pill company. Six potential participants were excluded from participating in an interview. Two were under 18 years of age, three had not used BZP party pills in the previous six months, and one decided against doing an interview after screening as they were uncomfortable disclosing information about illicit drug use. After screening, an appointment was made to do a full interview if the participant was happy to proceed.

There were several ethical issues around recruitment and interviewing. Consent was always gained from each participant prior to the researcher using their contact details to speak to them in person. This contact information was never matched to an individual, rather to an appointment time, and was destroyed immediately after each interview to protect participant's anonymity. At first contact participants were advised not to disclose their full name, and to use an alias if they preferred. At the end of each interview participants were given a voucher to thank them for their time. The majority of interviews were conducted over the phone, meaning vouchers had to be posted to participants. When participants provided their addresses for this purpose it was written directly onto

the envelope and posted immediately so that no record of the information was retained by the researcher.

Twenty Wellington interviews were conducted face-to-face and digitally recorded in a School of Psychology laboratory at Victoria University, all other interviews were conducted over the phone and digitally recorded. Each digital recording was transferred onto the laboratory computer and deleted from the recording device immediately after each interview. All interview recordings were stored on a password-protected computer in a secure laboratory. Each interview was then transcribed verbatim using Adobe Audition software, with the exception of any identifying information which was not transcribed (see appendix D for transcription conventions).

At the start of each interview a detailed information sheet was either given to the participant to read, or was read aloud to the participant over the phone (see appendix E for information sheet). At the start of each interview participants were asked to verbally confirm their understanding of the voluntary nature of the research, the recording and transcription of the interview, and confidentiality. Consent for the interview and its recording was gained verbally and recorded, without requiring the participant to disclose their name. The consent statement appears at the start of the semi-structured interview schedule in appendix F. Participants were given a movie ticket voucher or \$20 supermarket voucher to thank them for participating in the research. This study was funded by the New Zealand Ministry of Health's National Drug Policy Discretionary Grant Fund.

The semi-structured interview covered three main areas of interest: BZP party pill use, other substance use, and opinions and feelings about a

potential ban of BZP party pills. Interview questions were generally open ended, for example “*Why did you decide start using party pills?*”, “*If party pills were banned completely, would you use anything else instead, legal or illegal?*”, and “*What do you think about the media attention to party pills?*” See appendix F for full semi-structured interview schedule. The questions were generally asked in the same order for each interview, however there were times when the order of questioning was guided by participant’s responses. Questions probing BZP party pill use were asked to gain understanding of BZP party pill users use patterns, motivations for use, habits around co-ingestion with other substances, and knowledge of safe BZP party pill use practices. This information is important as it builds on previous qualitative and quantitative research by Butler and Sheridan (2007) and Wilkins, Girling, Sweetsur, Huckle, and Huakau’s (2006), providing a comprehensive understanding of BZP use issues in New Zealand. Questions about illicit substance use tell us how BZP party pills are used in relation to other substances. This is important because the findings from study two and previous research (Butler & Sheridan, 2007; Wilkins, Girling, Sweetsur, Huckle, & Huakau, 2006) describes BZP party pill users as a poly-drug using population. These questions also allow us to see how much experience BZP party pill users have with their suggested post-ban alternatives to BZP. Finally, questions about what BZP party pill users intend to do after BZP party pills are banned directly answer the research question, and give an indication of the potential consequences of a ban of BZP party pills.

Analysis and presentation of results

The interviews in this study collected qualitative data about participant's BZP party pill use and how they expect to respond to a ban of BZP. Where appropriate, responses have been quantified to give an indication of the frequency of specific answers. The data will be analysed in the same way as the BZP party pill marketing material in study one, using Thematic Analysis, as outlined by Braun and Clarke (2006). Themes are identified in the data by coding individual responses, and then organising this coded data into relevant themes (see chapter three for a more detailed review of this method). The analysis for study 3A is a semantic description of the data that sought to answer specific questions about the consequences of banning BZP party pills. Therefore, the themes identified are highly data driven, and a more realist or essentialist approach was taken compared to the analysis of BZP party pill marketing material in chapter three. Results will be presented for this study both quantitatively and qualitatively. Frequency of specific responses will be reported, then the themes identified for that question will be described, and specific examples of responses from each theme will be given. The aim is to provide the reader with as vivid a picture of the data as possible. Please note that although some responses are being quantified, this information is simply descriptive. Participants were free to answer each question in as much or as little detail as they wished. Therefore it would be inappropriate to attempt to statistically analyse any of the quantified results, and many tables will not equal 100%.

Analysis

Demographics. Thirty four participants were female and 26 were male. Thirty four were from Wellington (interviewees 1 – 34), 16 were from Christchurch (interviewees 35 – 50), and 10 were from Auckland (interviewees 51 – 60). The mean age was 24.3 years (range 18 – 49 years, median 20 years). Fifty two were Pakeha, four were Maori, two were British born European, one was Pacific Island Nations, and one did not disclose ethnicity.

Current use information. Participants were asked how often they used BZP party pills and how long they had been using BZP party pills for.

Table 5.0.
Frequency and duration of BZP party pill use.

How often?		How long?	
Daily	4	< 6 months	6
2+ a week	14	6 – 11 months	5
1 x a week	6	1 year	13
3 x a month	4	2 years	13
1 x a fortnight	14	3 years	10
1 x a month	9	4 years	1
< 1 x a month	9	5+ years	7

This information shows that the BZP party pill users in this sample are diverse in their use patterns. Frequency of use ranges from daily to less than monthly and duration of use ranges from less than six months to over five years. Participants appear to use BZP party pills fairly regularly, with most using fortnightly or more often, and the majority have been using BZP party pills for more than a year.

Benzylpiperazine party pill use and alcohol

Hospital studies (for example Gee, Richardson, Woltersdorf, & Moore, 2005; Nicholson, 2006; Theron, Jansen, Miles, 2007) have found that co-ingestion of alcohol is common in BZP party pill related presentations in emergency departments. To investigate how common co-ingestion with alcohol might be, participants were asked whether they ever drink alcohol while using BZP party pills, and if so, how the amount of alcohol they consume while using BZP party pills is affected.

Table 5.1.
Alcohol consumption while using BZP party pills.

Drink alcohol with BZP party pills?		Amount of alcohol consumed when used with BZP?	
Yes	39	Drink more	18
No	18	Drink less	19
Rarely	3	Drink the same	4

The majority of participants said they drink alcohol while using BZP party pills. Over half of those who drink and take BZP party pills drink the same amount or more alcohol than when just drinking alone. It is unsurprising then that co-ingestion of BZP and alcohol is commonly reported in the hospital studies mentioned above. Benzylpiperazine (like many illicit substances) is more harmful when combined with alcohol, as evidenced in hospital studies. Co-ingestion rates also show a lack of attention to instructions or harm reduction strategies for BZP use. This could indicate a reduced perception of harm from BZP use, possibly due to BZPs legal status.

Several themes were identified in the responses to these questions about drinking and taking BZP party pills. Respondents who said they tended to drink more alcohol when using BZP party pills explained that they could drink a lot more because the BZP party pills masked the effects of the alcohol. Extracts one and two provide examples of this rationale.

Extract 1

- K Now how do you think banning party pills would affect your drinking habits?*
- IE Ha ha ((laughs)) you can drink like a fish. You can drink so much alcohol it's ridiculous, but not feel drunk. Like party pills don't you don't feel it until the next day, like, yeah you can just drink so much but you're still going cos you're on this party pill, you're just drinking like tons and then suddenly you just realize how much you've drunk, and then probably by the end of the night you're feeling really sick, and then the next day you're feeling really bad.*
- Interviewee 56.

Extract 2

- K ... and how is the amount you drink affected by taking party pills?*
- IE um as I said like I don't usually drink as much but then sometimes um I end up kind of drinking like a fish because you don't realize*
- K yep*
- IE and see because you know like I always keep up the water and orange juice because it actually enhances the the feelings and stuff*
- K okay*
- IE but if there's a bottle of wine in front of you I don't actually realize that I've drunk that bottle of wine ((laughs))*
- Interviewee 4.

As extracts three and four show, some participants who said they drank less alcohol when using BZP party pills, expressed that once the BZP party pills started to take effect they no longer felt like drinking alcohol.

Extract 3

- K ... and how is the amount of alcohol you drink effected by the party pills do you think?*
IE I don't want to drink when I'm on them.
K So you would drink less?
IE Yeah. I might start off with a few but then, when they kick in I don't really think about it anymore, like I don't feel the need to go and get a drink.

Interviewee 18.

Extract 4

- IE I can't really drink after I've had them, so um, basically my alcohol intake just stops. So I'll drink all night, so I'll just have a few drinks, and when I do have a party pill that's basically when I stop drinking, cos my body just, I just can't take it for some reason and I start drinking water, and then yeah, so.*

Interviewee 23.

Benzylpiperazine party pill use and other drugs

Participants were asked if they had ever used any illegal substances. Only nine participants had no history of illicit drug use, 18 had only used cannabis, and 33 had a history of illicit drug use. Participants were asked to name the substances that they have used in the past. Table 5.2 shows how many participants said they had used each substance.

Table 5.2.
Participant substance use history

Substance	Number of participants who've used
Cannabis	39
Ecstasy	24
LSD	16
Speed	11
Methamphetamine (P)	11
Magic mushrooms	11
Cocaine	9
Ketamine	5
Heroin	3
Morphine	2
Mescaline	2
Prescription drugs (for recreational use)	2
Ritalin	1
DXM/LSA	1
Homebake	1
Rohypnol	1
GHB	1
Opiates in general	1
"Pinkies" (chemical name unavailable)	1

Participants who responded to the questions about illegal drug use had a diverse drug-use history. Apart from the cannabis-only users, participants with illicit drug histories were generally poly-drug users, the majority listing more than two. Extracts five and six are typical descriptions of poly-drug use histories.

Extract 5

K So which illegal drugs have you used before? Now you've said ecstasy

IE Ecstasy, speed, coke, (laughs) [whispers:] I'm not a druggie (laughter). This is really bad, Ketamine, um, magic mushrooms, um, and acid, I was in the UK so, yeah. Um, and marijuana, yeah, and alcohol, I guess that's a drug, yeah, and, think that's it, yeah that's it.

Interviewee 23.

Extract 6

K Now remember that this is confidential, what other illegal drugs have you used?

IE Ah most of them

K Can you list off maybe you know like your top five or something like that?

IE Ok, cocaine, ecstasy, speed, LSD um, Ketamine.

K Cool, ok, are there any others that spring to mind that you can think of?

IE Um, mushrooms, marijuana, ah pretty much it.

Interviewee 55.

In extract five, interviewee 23 uses an interesting justification for the number of illicit substances she has used in the past. After expressing that she feels her drug use has been “really bad”, she states that she was in the UK at the time. This statement functions to justify her drug use under the assumption that heavy drug use is an accepted part of young New Zealanders overseas experiences.

A predominant theme was the clustering of ecstasy, speed, LSD, and cannabis use. These substances were most frequently mentioned together by participants.

Extract 7

- K* *Ok, so what illegal drugs have you used?*
IE *(laughs)*
K *It's alright, don't forget this is all confidential.*
IE *Ok, umm, I've used E, speed, trips, pot*

Interviewee 1.

Extract 8

- K* *Now what illegal drugs have you used before?*
IE *um ah um marijuana and ecstasy and speed.*

Interviewee 14.

Participants with illicit drug-use histories were then asked what illegal drugs they thought BZP party pills were a good substitute for. Table 5.3 below shows how many participants said BZP party pills were a good substitute for each substance.

Table 5.3.
Number of participants who think BZP party pills are a good substitute for specific substances.

Substance	Number of participants who think party pills are a good substitute
Ecstasy	21
Speed	15
Methamphetamine (P)	11
None/Can't compare	5
LSD	3
Cocaine	2
Alcohol	1
Magic mushrooms	1
Cannabis	1
Ritalin	1
All drugs	1

The main theme identified for this question was that ecstasy and speed were frequently mentioned. Central to this theme was that similarity of effect was the most common explanation for whether BZP party pills were a good substitute for a drug or not.

Extract 9

- K ... which illegal drugs are party pills a good substitute for?
[Pause]*
- IE Hmm, illegal drugs. Everything really, [yeah?] I reckon yeah everything. Because you get the same effect. [Yep] I reckon.*
- K Ok, so=*
- IE =like E and speed and trips [Yep] party pills give you the euphoric feeling that you get from them*

Interviewee 1.

Extract 10

- K Um which illegal drugs are party pills a good substitute for?*
- IE um E and speed and cocaine and anything that's energizing really.*

Interviewee 14.

Extract 11

- K Yeah, I guess ah, I guess what I mean is which um, which illegal drugs could party pills easily just take the place of for some users?*
- IE Ah, I think quite a lot of them, I mean certainly those ones that speed you up, you know, like speed or P or Ice or whatever, they could certainly take the place of, you know, in the sense that it has similar effects. Um, yeah.*

Interviewee 21.

By contrast, another less prominent theme was that BZP party pills cannot be compared to any illegal drugs, contradicting responses from the previous theme.

Extract 12

- K* Yeah, which drug do you think is most similar to party pills?
IE Um it it it you can't compare them
K Ok
IE Yeah it's you know like trying to compare a bottle of champagne with a beer.

Interviewee 46.

Extract 13

- K* Yep, cool, ok. Now which illegal drugs do you think party pills are a good substitute for?
IE Um, none
K Ah, really?
IE Yeah. You can't compare them, they're completely different aye.

Interviewee 25.

The comparison of champagne with beer in extract 12 provides an excellent insight into how BZP and other substances can be perceived as similar, yet different. Though beer and champagne are both alcoholic drinks, they are different in many ways – taste, strength, context of consumption, typical user, price, and perceived quality. Interviewee 46 might mean that illicit drugs are qualitatively different to BZP, where BZP is the beer, and other illicit drugs are champagne.

Participants were asked if they ever used other drugs *with* BZP party pills. Over a third (21) of the participants had used illegal drugs and BZP party pills

together, the remaining 39 had not. The 21 participants who had used illegal drugs and BZP party pills were then asked what illegal drugs they had used with BZP party pills. Table 5.4 below shows how many participants said they have used each substance with BZP party pills.

Table 5.4.
Co-ingestion of BZP party pills with illicit substances.

Illegal drug used with BZP party pills	Number of participants who've used with BZP party pills
Cannabis	16
Ecstasy	14
Speed	6
Methamphetamine (P)	6
LSD	5
GHB	2
Magic mushrooms ⁵	1
Ritalin	1
Ketamine	1
Methalone	1
Cactus	1

Most participants who had used illegal drugs and BZP party pills together had done so with more than one substance, most often cannabis and one or more others, or ecstasy and one or more others. Rates of co-ingestion with illicit substances are a concern due to the prevalence of co-ingestion of BZP and illicit substances in emergency room presentations (Gee, Richardson, Woltersdorf, & Moore, 2005; Nicholson, 2006; Theron, Jansen, Miles, 2007). This is further evidence that harm reduction messages and product instructions around not

⁵ The term "Magic" has been added here, and from here on, to make clear that interviewees were referring to hallucinogenic mushrooms for recreational use. Interviewees did not however use the term 'magic mushrooms', they talked about 'mushrooms' in the context of drug use.

mixing BZP with other substances are frequently ignored. We know from study 2B that the legal status of a substance influenced the way respondents thought about the risks of substance use, where legal substances were perceived to be safer than illegal ones. High rates of co-ingestion might be an indication that the legal status of BZP party pills creates a sense of safety for users, perhaps leading to this riskier use behaviour.

And after BZP party pills are banned...?

Benzylpiperazine party pill users were asked a series of questions about how they anticipated they would respond to a ban on BZP party pills. The first question asked was would they use anything else if BZP party pills were banned completely. Table 5.5 below shows what substances users identified they would use after BZP party pills were made illegal. Responses from users with an illicit drug history are presented separately from users with cannabis only or no illicit drug history, so that differences between these groups can be observed. Responses from participants with illicit drug history are on the left, and responses from participants with cannabis only or no illicit drug history are on the right.

Table 5.5.

Substances mentioned as alternatives to BZP party pills after a ban.

Participants with illicit drug history		Participants with cannabis only or no illicit drug history	
Substance	No. of times mentioned	Substance	No. of times mentioned
Ecstasy	20	Ecstasy	6
Speed	9	Nothing	5
Black market BZP	4	New legal party pills	3
Methamphetamine (P)	4	Cannabis	3
Nothing	3	Any legal alternative	2
LSD	2	Alcohol	2
Cannabis	2	Black market BZP	1
Legal energy pills	1	Speed	1
Alcohol	1	LSD	1
Magic mushrooms	1	Prescription drugs for recreational use medicines	1
Poppy seed tea	1		
Illegal pure BZP	1		
Not sure	2	Not sure	5

A theme identified in responses to this question was that participants who have already used illegal substances are more inclined to consider illegal alternatives once BZP party pills are banned. Ecstasy was by far the most popular alternative for these participants.

Extract 14

- K* Now if party pills are banned completely, would you use anything else instead?
- IE* If they were banned completely, um, I would revert back to normal drugs. Illegal drugs, more. Well, I don't even know if it would be more, well I guess it would be cos now you're suddenly short of something to take.
- K* Yep, and what do you think would be the drug you would most likely use instead of party pills?
- IE* Um, speed or E

Interviewee 56.

Extract 15

- IE* Well, if party pills are banned completely I'm not gonna be going to find them on you know the black market or whatever. I'll be more likely to go and find the real deal.
- K* Yeah, what do you think
- IE* Illegal drugs
- K* Yeah what what do you think you would use instead?
- IE* Probably ecstasy, and more likely to use P

Interviewee 28.

Extract 16

- K* If party pills were banned completely, would you use anything else instead?
- IE* Yes I would.
- K* What would you be looking to use?
- IE* I'd use ecstasy, acid, mushrooms, anything I could get my hands on.

Interviewee 44.

In extracts 14 and 15 there is a subtle differentiation between BZP party pills and illicit alternatives. In extract 14, interviewee 56 says he'd go back to "normal drugs", and in extract 15, illegal drugs are referred to as "the real deal". There is the insinuation in these extracts that BZP party pills are not like illicit substances, and they are perhaps inferior.

Ecstasy was also a popular alternative to BZP party pills for participants with only cannabis or no illicit drug history. These responses indicate that a number of BZP party pill users who have not yet used class A or B substances are willing to move on to harder drugs in the absence of BZP party pills.

Extract 17

- K* *Ok, so if party pills were banned completely, would you use anything else instead?*
IE *Yep, I would take E and I would try illegal drugs, definitely.*
 Interviewee 51. (No illicit drug history)

Extract 18

- K* *Now if party pills were banned completely, would you use anything else instead?*
IE *Um, if well I I think that if they're banned they'll still be available. But if they weren't I think I would have no choice but to use alternatives.*
K *Ok, what do you think would be your first option as an alternative to BZP?*
IE *MDMA, I would I would try E, cos everybody says that it's better. Um and you get a very similar results in terms of the good side of things.*
 Interviewee 59. (Cannabis only history)

Although some 'drug-naïve' participants were willing to consider illegal alternatives, the predominant theme for these participants was avoidance of illegal alternatives, though no specific legal alternative emerged. Many were not sure if they would use anything else instead or were not sure what their alternative would be.

Extract 19

- K Um, if party pills were banned completely, would you use anything else instead, whether it's legal or illegal?*
- IE Um, I might, but I wouldn't use illegal, I'd only use legal.*
- K Ok, and is there any legal substances you can think of that you might use instead of party pills?*
- IE No.*

Interviewee 24.

Extract 20

- K Now if party pills were banned completely, would you use anything else instead, illegal or legal?*
- IE Um if there was a ah ah ah if there was another a legal legal, cant say that word properly, if there was a you know a legal um substance that was the same as party pills then yes but I wouldn't use anything illegal.*

Interviewee 43.

Extract 21

- K Now if party pills were banned completely would you use anything else instead?*
- IE Mm, no, I think they'll just bring out some other drug. They'll find something else and just put that in pills and sell that instead.*
- K Oh ok, so you reckon there'll be some legal um, another new legal party pill that will come out with a different substance in it?*
- IE Yeah, just mess round with like that particular cow dewormer and find out you know something that's slightly different but does the same thing and then boom! Might be under the law so they'll be under the door.*

Interviewee 49.

Overall, ecstasy is the alternative to BZP party pills mentioned most frequently by both groups of participants, indicating that it is the substance most likely to be sought by BZP party pill users once the ban takes effect.

What about methamphetamine (P)?

Only four participants mentioned methamphetamine (P) when asked about alternatives to BZP party pills in the previous question, despite 'P' being suggested as the main alternative to BZP party pills by the BZP party pill industry. To check the likelihood of an increase in methamphetamine (P) use after the BZP party pill ban, participants were asked directly whether they would consider using methamphetamine or P as an alternative to BZP party pills after the ban. Table 5.6 below shows how participants responded to this question.

Table 5.6.
Responses to suggestion that 'P' is an alternative to BZP party pill use.

Participants with illicit drug history		Participants with cannabis only or no illicit drug history	
Response	No. of participants	Response	No. of participants
Yes	9	Yes	1
No	23	No	24

Participants gave extremely aversive responses to the suggestion that methamphetamine or P could be an alternative to BZP party pills. For many other questions simple 'Yes/No' responses were given, but for this question participants expressed strong negative reactions, often elaborating unprompted.

Extract 22

- K Now would you consider using something like methamphetamine or P instead of party pills if they are banned?*
- IE Oh no way! I wouldn't touch that stuff! I've seen it and I've seen what it's done. People get this false thing about being alright, but they're not. You know, especially ones with children and that. Danger aye.*

Interviewee 31.

Extract 23

- K Um, would you consider using um methamphetamine or P if party pills were banned?*
- IE ((laughs)) No! No, no, oh no.*
- K ((laughs)) Okay, can you tell me why that's not an option for you?*
- IE Ah well I mean I've never taken it, but I've talked to lots of people who have and I've seen, once again its probably bad public- media publicity but my, my eldest son, um he's dabbled and he's, he's totally against it. He goes 'its just for losers'. I've just heard too many people say it's such a bad thing, I'm exac- I don't even take grass! ((laughs)) do you think I'm going to try and take something else that bad?*
- K Yep.*
- IE But I just heard that its so addictive and it, you see so many people get addicted and it drags them down and turns their life upside down I think its more then anything.*

Interviewee 38.

Participants were asked why or why not methamphetamine (P) was an option for them. Many themes were identified in these responses, and most people had multiple reasons for not considering methamphetamine (P) as an alternative. The first and most common was the amount of negative media attention on methamphetamine (P) in recent years.

Extract 24

- K Um now would you ever consider using methamphetamine or P instead of party pills?*
- IE No! No! shit no! no.*
- K Now why not?*
- IE Because that has very bad um ah med- you know, news media.*
- K Yep.*
- IE Yeah.*
- K Okay.*
- IE People just loose it on that.*

Interviewee 39.

Extract 25

- K And would you consider trying methamphetamine or P instead of party pills if they are banned?*
- IE Um, no, I might say no right now, I've managed to not go down that road.*
- K Cool, and why, what is it that puts you off trying that?*
- IE Um, partly negative media coverage, really bad negative media coverage, and um, personal experience seeing um people, completely spin out, and also just associating with people I don't want to associate with.*

Interviewee 48.

In both the above extracts participants generalise the stories they've seen in the news media to anyone who uses methamphetamine. In extract 24, interviewee 39 states that "People just loose it on that" and interviewee 48 says in extract 25 that "people, completely spin out". Participants generalised stories about methamphetamine use in the media to the point that it put them off using it themselves.

Another theme was witnessing the adverse experiences of friends who had used methamphetamine (P), and closely related to this the perceived addictive potential of methamphetamine (P).

Extract 26

- K ... my next question then was would you consider using methamphetamine or ice or P instead of party pills if they were banned?
- IE No I wouldn't, definitely would not use P, yeah.
- K And can you explain why it's not an option for you?
- IE Um, I've had friends who have become heavy P users, and um, I've had my house broken into, which I'm pretty sure was by the person who was using it, and I've just had friends, I've got, well and old friend has been in jail for it, for dealing. And just, one of my really good friends um, has become a regular user, well actually two of my friends, and um, in terms of they had a massive inheritance and blew the whole lot. So, and also I just, can't see anything good of that drug. It's just not even, it's just such a nasty, yeah, it just would, yeah, I mean going overseas as well and coming back and seeing how much worse it's become it's just made me think oh god, I wouldn't even go there, so yeah.

Interviewee 23.

Extract 27

- K Um, would you consider using methamphetamine or P instead of party pills when they're banned?
- IE No, no
- K And why not?
- IE Ah, because P junkies scare me, it's too intense.
- K Ok
- IE I wouldn't, I just wouldn't aye
- K Yep, cool, is that, is that just based on what you've seen or?
- IE It's based on what I've seen amongst some of my friends, and just, I don't know, it's too much, it's too much. It's up there with heroin really aye.

Interviewee 27.

Extract 28

- K What about methamphetamine or P? Would you ever consider using that as an alternative to party pills if they were banned?
- IE I don't think I'd ever consider using it in the first place, um, but no.
- K Ok, why is that, why is that a substance you would not consider?

IE Um, just because of the amount of media attention it's got, and how how how much it's been bashed and that, um, but the main thing would be because of it's addictive potential. Like of all the things that I've tried, I've pretty much stayed away from everything that can be physically addictive, um, and you know P can be very addictive.

Interviewee 17.

Some participants with a history of drug use said they would use methamphetamine (P) as an alternative to BZP party pills, though most were unhappy that they were being 'forced' to go back to it.

Extract 29

K ...you've said you've used ice before, do you think you would consider using methamphetamine instead of party pills if they were banned?

IE Probably, yeah.

K Yep? And why would you consider that, what would be the um reasoning behind doing that?

IE Well it would just be availability. If I couldn't get the safer cheaper alternative, if that wasn't as readily available and I still wanted to um, go out and have fun in the way that I like to have fun, then I would probably go to that. I mean I would a little bit annoyed that I had to do it because I know that it probably wouldn't be, you know, best practice, so to speak, but yeah.

Interviewee 21.

In extract 29 the interviewee expresses that he would be annoyed if he "had to" go back to using methamphetamine if BZP party pills were banned. Implicit in his response is the suggestion that the kind of fun he's used to having requires the use of a substance. He's also suggesting that methamphetamine is more available to him than other illicit alternatives to BZP party pills. Generally however, responses to this question indicate that methamphetamine (P) is not

considered to be an alternative to BZP party pills for the majority of participants. Those who do consider it after the ban are most likely to be those with previous experience of methamphetamine (P) or other class A and B substance use. Indeed, the number of participants suggesting they were prepared to use methamphetamine (P) instead of BZP party pills was fewer than the number who have already used methamphetamine (P) in the past. The majority of participants considered methamphetamine (P) use completely out of the question, and had multiple reasons for avoiding its use.

“Yes Mr Anderton, I would increase the black market.” - Black market BZP?

To check whether there would be a demand for black market BZP party pills after the ban takes affect, participants were asked whether they would try to obtain illegal BZP party pills. Thirty four participants (like interviewee 57 in the heading above) said they would actively seek illegal BZP party pills after they were banned. Twenty six recent users said they would not look for illegal BZP party pills.

Participants were then asked how much they would be prepared to pay for illegal BZP party pills if they were offered some. This question was asked to assess how financially viable a potential black market for BZP might be. Table 5.7 below shows how much participants were prepared to pay for illegal BZP party pills compared to their current legal price.

Table 5.7.

Amount participants are prepared to pay for BZP party pills after they are illegal.

Amount prepared to pay for illegal BZP party pills	Number of participants prepared to pay
Ten times current cost	1
Double current cost	20
50% more than current cost	2
More, but less than cost of ecstasy	5
A bit more than current cost	4
Same as current cost	11
Less than current cost	6
Free/Nothing/Wouldn't pay	10
Illegal market value	1

The majority of participants were happy to pay a substantial amount more for illegal BZP party pills than they do now for legal ones. Many of the participants who said they would not seek illegal BZP party pills were still prepared to pay for them if they happened to be available.

The dominant response for this question was that most participants were prepared to pay more for illegal BZP party pills. However several other themes were identified that are relevant to the demand for black market BZP party pills. Some participants said that their decision to purchase illegal BZP party pills was dependant on the source and quality of the pills on offer.

Extract 30

K Ok. If someone offered them to you illegally, how much would you be prepared to pay for them?

IE It would depend on if it was a brand I recognized cos if I was offered something that was like home made or whatever I wouldn't even go there. But um, if it was a brand I was comfortable with I'd probably pay around thirty... oh I'd

probably split it with a friends actually. So yeah just whatever, whatever for like six or whatever, we'd just split it up between us. Probably spend up to about twenty bucks though.

Interviewee 19.

Extract 31

- K If party pills were banned completely, would you attempt to get them illegally?*
- IE Um, depends like where you get them from, like if I knew the person, I think I would, but I wouldn't go into like, people I don't know and try and get them off like gangs anything. I don't like them that much!*

Interviewee 22.

In extracts 30 and 31 the participants are realising that the uncertainty and risk associated with the purchase and use of illicit substances would also apply to BZP party pills if they were made illegal. Another theme identified was that for some participants, the price of illegal BZP party pills would be dependant on the price of ecstasy. Illegal BZP party pills must cost less than ecstasy to be worth purchasing.

Extract 32

- K If someone offered you some, um, illegally, how much would you be prepared to pay for an illegal party pill?*
- IE Um, probably at the most forty dollars, but I s'pose when they become illegal the demand goes up so it's probably price goes up, but I wouldn't pay the same amount as you'd pay for an E because obviously they're not as good, so [laughs]*
- K Ok, so, but you would be prepared to pay a little bit more than what they are now?*
- IE Yeah, yeah, because they'd, if they're illegal then obviously then it's you probably want to have it more, so yeah.*

Interviewee 23.

Extract 33

- K Um, now if party pills were banned completely would you try and get them illegally?*
- IE Yeah, maybe, it depends on the price*
- K Ok, cool, that's good cos my next question is how much would you pay for illegal BZP?*
- IE Let's think. If E's about sixty dollars, then maybe (.) thirty dollars for BZP. But once it gets close enough to E in price, then I'll just switch to E. It's sort of a trade off.*
- K Ok. So um, would you be prepared to pay more for it when it's illegal?*
- IE A bit more, but relative to other drugs*
- K So how much more? Ok cool, so you base what you would pay for it on what other drugs are worth in comparison?*
- IE Yeah cos once they're both illegal they are both illegal, yeah.*

Interviewee 51.

In extracts 32 and 33 the participants are negotiating a cost-benefit analysis between the financial costs and effects of each substance. The participants are prepared to pay more for ecstasy compared to BZP because the effects of BZP are “not as good” as those of ecstasy.

Few participants mentioned that they would stock up on BZP party pills in preparation for the ban, however one participant discussed access to large quantities of BZP in anticipation of supplying black market BZP party pills.

Extract 34

- K ... if party pills were banned completely would you try and get them illegally?*
- IE Absolutely.*
- K Now how much would you be prepared to pay for illegal BZP?*
- IE Well I think they'll be cheaper. I've already been offered three and a half thousand BZP tablets for two thousand*

- dollars, that works out at fifty six cents each or something, and currently they're ten dollars each so, I think that if they're made illegal they'll be a lot cheaper rather than more expensive.*
- K Ok, so you've been offered, sorry how many?*
- IE Um three thousand two hundred and fifty plus two kilos, or or um yeah two kilos for two thousand dollars.*
- K So um, was this offer made from someone within the industry?*
- IE Yes*
- K Right. Ok, so that would indicate that there's likely to be a black market?*
- IE Oh absolutely. There's a black market in anything that's illegal but desirable.*
- K Yep ok. So you would be, you would actually not be prepared to more you would pay less for illegal party pills?*
- IE I think I would pay less, yeah.*
- K Yeah, ok.*
- IE I I yeah absolutely.*

Interviewee 59.

Taking this participant at face value, it would indicate that there is indeed supply ready to meet the demand for illegal BZP party pills. Considering the prices that users say they are prepared to pay for illegal BZP party pills and the apparent cost to suppliers, black market BZP could prove to be a lucrative option for drug dealers.

In extract 34, interviewee 59 offers an interesting explanation for the existence of any black market when he states "There's a black market for anything that's illegal but desirable." The assumption is that BZP party pills will still be desirable after they are made illegal, and this will inevitably lead to a black market.

Responses to the questions about illegal BZP party pills indicate that after the ban there will be a demand for black market BZP party pills, and there is some evidence that there will be a supply to fill this demand.

What do BZP party pill users think others will do after the ban?

To get a picture of what users are expecting to happen after the ban, participants were asked what they think other BZP party pill users will use instead of BZP party pills. Table 5.8 below shows which substances participants mentioned in response to this question, and the number of participants who talked about each substance. Some participants mentioned substances that they specifically thought would *not* be used as an alternative to BZP party pills. These are listed at the bottom of the table.

Table 5.8.
What substances participants thought others might use as alternatives to BZP party pills after the ban.

Substance	No. of participants who mentioned
Ecstasy	29
Methamphetamine (P)	17
Speed	15
Black market BZP	9
Alcohol	8
LSD	5
Cannabis	4
Caffeine	3
Nothing	3
Ritalin	2
Illegal drugs in general	2
Not methamphetamine (P)	7
Not ecstasy	2

Responses to this question indicated a variety of alternatives are expected to take the place of BZP party pills. As with previous questions, ecstasy is

mentioned most often, but usually as one of several alternatives. Interestingly, participants were far more likely to suggest that others would use illicit substances than they were themselves. It is possible that a degree of cognitive manipulation is taking place for these participants. Gerrard et al. (1996) described how drug users over estimate the prevalence of drug use in the general population in an effort to normalise the behaviour, effectively dispersing responsibility for the risks.

Extract 35

- K* *Ok, now what do you think most other party pill users will use instead of party pills if they're banned?*
- IE* *Hmm, I think there'll be some that stop using party pills and you know drugs altogether, but um, I think the most logical choice will be going onto ecstasy.*

Interviewee 58.

Extract 36

- K* *What do you think most other party pill users will use instead of party pills if they are banned?*
- IE* *I don't know, just easily obtainable, um, drugs like speed and E and LSD.*

Interviewee 25.

When the participants in extracts 35 and 36 talk about illicit substance use as “the most logical choice”, and substances are described as “easily obtainable” it reveals the cultural context from which interviewees 58 and 25 are coming from, a culture where illicit drugs are logical and easy to obtain.

Despite participant's negative responses to using methamphetamine (P) themselves, there was a perception that *other* people are likely to use methamphetamine (P) as an alternative to BZP party pills.

Extract 37

- K Now what do you think most other party pill users will use instead of party pills if they are banned?*
- IE Um, ecstasy's always the big one in in, sorta the clubs and gigs. I've got a nasty feeling that you know, the P epidemic might reignite. I don't know if it ever particularly, you know it's been a big problem over here, but I can see that getting worse. Um, yeah they they would be the two that I would see being you know, pretty dominant.*

Interviewee 55.

Extract 38

- K Now what do you think most other party pill users will use instead of party pills if they ban them?*
- IE Ah well, [inaudible] go on alcohol, and ah probably some of them would actually try P. Cos they've been told that P is a lot like party pills, keeps you alert and everything, yeah, but. Total malfunction for that you know, that P, it's, it's chronic.*

Interviewee 31.

In extract 38, participant 31 points out that BZP party pill users have been exposed to various messages in the media and BZP party pill marketing material that suggest BZP party pills are similar in effect to methamphetamine (P). Although participants were personally against the use of methamphetamine (P), responses to this question indicate that some have accepted the message from industry supporters that BZP party pill users will use methamphetamine (P) if BZP party pills are banned. It is important to note that the perception that BZP party pill users will use methamphetamine (P) instead of BZP party pills is not

supported by participant's responses to questions about what they personally will and will not use. There is evidence here of a self-other bias, where participants believe they will make better choices about BZP party pill alternatives than others will.

What about alcohol consumption?

Participants were asked how banning BZP party pills would affect their drinking habits. Twenty nine participants said that they would drink more alcohol if BZP party pills were banned, 27 said banning BZP party pills would have no effect on the amount of alcohol they drink, and three participants said they would drink less alcohol if BZP party pills were banned.

For participants who said they would drink more alcohol it was usually a case of using alcohol socially on the occasions they would otherwise have used BZP party pills.

Extract 39

- K Now how do you think banning party pills would affect your drinking habits?*
- IE Oh well I really don't want to go back to drinking. But I would probably drink until I found something else, you know, for when I'm out. Because I wouldn't wanna be completely you know straight and feeling really out of place because every one else is drinking, so I probably would drink again until I found something else.*

Interviewee 47.

Many of the participants who said that banning BZP party pills would have no effect on their drinking habits didn't drink alcohol at all anyway, and didn't intend to start.

Extract 40

K Now how do you think banning party pills would affect your drinking habits?

IE Well for me, I don't drink, and I will continue to not drink so that won't affect mine at all.

Interviewee 33.

Some participants who said that banning BZP party pills would have no effect on their drinking habits already drank while using BZP party pills, and said they would continue to drink at the same rate.

Extract 41

K Um, how do you think banning party pills would affect your drinking habits?

IE I drink too much already so ((laughs))

K ((laughs)) yep

IE I work at a bar ((laughs))

K yep, so you don't think it would um increase any more than it already is?

IE ((laughs)) I don't think it would be possible.

Interviewee 4.

The majority of participants combined the use of alcohol and BZP party pills, and this accounts for the number of participants whose drinking habits will be unchanged by a ban of BZP party pills. They will continue to drink alcohol on those occasions that they would usually be using alcohol and BZP party pills.

Interim summary

The sample of participants for study two represents a diverse range of BZP party pill users. Participants are varied in their use of BZP party pills and other substances. The analyses show that contrary to manufacturer

recommendations, the majority of BZP party pill users consume alcohol while using BZP party pills. For many of these users the combination of BZP party pills and alcohol leads to an increase in alcohol consumption. Also contrary to manufacturer recommendations, a considerable number of participants used illicit substances while using BZP party pills. The substances most commonly used with BZP party pills were cannabis and ecstasy.

The majority of participants in the study reported a history of illicit drug use. Cannabis was the most commonly used substance, followed by ecstasy. The main theme around participant's illicit drug histories was poly-drug use. With the exception of cannabis, rarely had a participant only used one illicit substance. Most frequently they had a history of using three or more substances.

Benzylpiperazine party pills were most suitable substitutes for ecstasy and speed, and ecstasy was the illicit substance most likely to be used instead of BZP party pills after the ban. However, a wide variety of alternatives to BZP party pills were suggested. Participants with a history of illicit substance use were more inclined to talk about illegal alternatives, where participants with cannabis only or no illicit drug history seemed to be looking for legal alternatives, though they were not sure what.

Methamphetamine (P) was presented as an unpopular alternative to BZP party pills for the majority of participants. Participants responded extremely negatively to the suggestion of methamphetamine (P) use, and supplied multiple reasons for avoiding it as an alternative to BZP party pills. Interestingly, when asked what they thought *other* BZP party pill users would use instead of BZP party pills, methamphetamine (P) was mentioned more frequently. This

phenomenon could be explained as participant's acceptance of messages in the media and from the BZP party pill industry, suggesting that methamphetamine (P) is the logical alternative to BZP party pills. Participants are typically sure that they personally would not use methamphetamine (P); however they are willing to believe that others would. This could also be evidence of participants engaging in cognitive manipulation like that described by Gerrard et al. (1996).

Participants could be overestimating illicit substance use in the general population as a way of normalising substance use. Ecstasy was the most frequently mentioned alternative to BZP party pills for other users.

The majority of participants said that they would attempt to access illegal BZP party pills after they were banned. When asked how much they'd be willing to pay for illegal BZP party pills the majority would pay more than they pay now for legal BZP party pills. According to participants in this study, there would appear to be a demand for black market BZP party pills, and some evidence that there will be supply to meet that demand.

Finally, for some participants a BZP party pill ban will result in an increase in alcohol consumption. For others there will be little effect on their drinking. If this is the case, for those participants who use BZP party pills and alcohol together, the removal of BZP party pills from the situation will reduce their risk of substance related harm.

The overall finding from study two is that there is no single alternative to BZP party pills for participants in this study. Ecstasy is the illicit substance most frequently mentioned in all the questions about illicit substance use. Of all the illicit substances mentioned, BZP party pill users are most likely to have already

used ecstasy (with the exception of cannabis), they think that BZP party pills are a good substitute for ecstasy, they are most likely to use ecstasy instead of BZP party pills once they are banned, and they think ecstasy is the substance other BZP party pill users are likely to turn to. However, participants talked about many other alternatives. Speed was often mentioned along with ecstasy, but methamphetamine (P) was an unpopular alternative to BZP party pills for most participants, contrary to BZP party pill industry claims. There is a demand for black market BZP party pills, and if a supply emerges, this could potentially be the primary alternative for BZP party pill users. Alcohol is also likely to be used instead of BZP party pills. Participants were unlikely to select one alternative to fill the gap left by legal BZP party pills. A combination of illicit substance use, black market BZP party pills, and alcohol will be the likely alternative to legal BZP party pill use.

Participants were at least aware of harm reduction strategies around BZP party pill use, however many ignored advice to avoid co-ingestion with alcohol or other illicit substances. This does not necessarily mean that other harm reduction strategies were not employed. Poly-drug use is common and most frequently intentional to enhance the high associated with either substance being used. Other harm reduction strategies such as monitoring hydration and sticking with a group of friends are still effective measures to keep drug users safe, even when co-ingesting multiple substances.

There were discrepancies in the levels of risk associated with different drugs, much like those evident in study 2B, where methamphetamine (P) was discussed as a high risk or dangerous substance compared to other substances.

Respondents appeared to over-estimate the prevalence or likelihood of methamphetamine (P) use in the general population, despite the majority of participants expressing strong opposition to use of the substance themselves. One explanation for this overestimation of methamphetamine (P) use could be that respondents are engaging in cognitive manipulations where overestimating drug use normalises the behaviour for themselves (Gerrard et al., 1996). Alternatively, respondents might be basing their evaluations of the prevalence of methamphetamine use on the level of media coverage and messages from the likes of the BZP party pill industry, where the prevalence to of methamphetamine (P) use is often overstated. It is likely that these two explanations work together to create the perception that methamphetamine use is more common than it really is.

Study 3B: How do regular BZP users construct and assess risk around BZP and drug use?

The previous analyses have largely been of a descriptive nature as study 3A was designed to answer a research question grounded in a current political debate, rather than a theoretical construct. Answering the research question required a description of possible real world outcomes, rather than academic or theoretical constructs. The previous study took a realist approach to answering the research question, where the answers given by participants were taken to represent real life experiences and behaviours, rather than social constructions expressed through discourse. However a more social constructionist approach was taken to the analyses in study 3B to investigate participant's constructions of

risk around BZP party pill use. This approach examines how the risks of substance use are constructed and explained by participants through their discourse. According to socio-cultural theories of risk and substance use, risks are assessed in context, and balanced against the benefits of substance use (Duff, 2003; Hunt et al., 2007; Shewan et al., 2000; & White et al., 2006). In order to evaluate how BZP party pill users weigh up the decision to use or not use substances, these analyses examine how participants consider both the perceived costs and benefits of use.

For these analyses the data set included all data items where participants spoke about costs or benefits of substance use, including the risks, advantages, disadvantages, likes, and dislikes of use of any substance. The data set also included items where participants discussed the decision to use or not use any substance.

Analysis and presentation of results

These analyses are theoretically grounded, based on previous qualitative research that demonstrated the relevance of both costs and benefits, and the social contexts of drug use for users (Hunt et al., 2007; Shewan et al., 2000; White et al., 2006). The flexibility of Thematic Analysis allowed for a more social constructionist approach in the current study. The analysis for the current study aimed to examine what themes are constructed by respondents regarding the benefits and costs of substance use. Analysis was a continuous process that began during the initial interviewing stage. I conducted all of the interviews and did most of the transcription myself, enabling an ongoing process of analysis throughout each phase of the study. After transcription the entire corpus was

read and relevant items were selected to form the data set. As described by Braun and Clarke (2006), the data set was re-read and a preliminary list of codes was generated. The data set was read again and each item was coded. Some items satisfied several codes, others only one or none at all and several new codes were identified. Several readings of the data set resulted in a list of codes that described the data. The frequency of each code was recorded to give an indication of the prevalence of the ideas described by each code. The frequency of a code in the data set is not provided as an indication of the importance or weight of an idea, rather the likelihood that the idea is commonly accepted among the corpus. It is acknowledged that there is an ideological debate over the appropriateness of this method of quantifying codes within qualitative analysis, however the flexibility of thematic analysis allows for this approach (Braun & Clarke, 2006). A similar method of quantifying codes extracted from qualitative data has been used by Lakeman and FitzGerald (2009) in their study of the ethics of suicide research. All themes were included in the analysis regardless of frequency, and the frequency of a code was not used as a measure of weight or relevance for a theme. Rather, the frequency of a code is given in order to provide the most complete picture of the analysis possible, and to provide evidence of the rigor of the analytic process. Fifty-one codes were generated from the data, some that applied as both cost and benefit were split accordingly, and labeled with a C or B indicating cost or benefit, respectively. The codes were then mind mapped and sorted into themes and sub-themes, and the original data items were referred to, to ensure that relationships between codes were supported by the data.

Themes and sub-themes will be described and extracts that demonstrate each theme will be presented. The frequency of codes that make up the themes can be reviewed in table 5.9. Not all codes fit into a theme or sub-theme, and some codes form entire themes on their own.

Analysis and discussion

Table 5.9 shows all 51 codes derived and their frequency in the data set. A dominant theme identified in the data set was the dichotomous way of talking about the costs and benefits of BZP party pill and other substance use. Many themes contradict each other, revealing the negotiation of costs and benefits of drug use. Overall, participants emphasized the benefits of substance use, and placed the responsibility for costs or risks with other users, functioning to justify their ongoing use of substances in the face of acknowledged risks. Table 5.9 places these contrasting themes beside each other to demonstrate the contradiction and dichotomy in the data set. Other codes that relate to the dichotomous themes are also included. Themes and sub-themes will be described in more detail with examples from the data set below.

Table 5.9

Codes extracted from BZP party pill user data set that form dichotomous themes.

Themes						
Dichotomous Themes						
Themes	Freq	Opposing themes	Freq	Related themes	Freq	Total freq
1. Effects as benefit	114	2. Effects as cost	70	12. Relationship between ingredients and effects of drug	10	240
				3. Comparison of effects between drugs or party pills	46	
11B. Benefits associated with quality and quantity of ingredients	21	11C. Costs associated with quality and quantity of ingredients	21	12. Relationship between ingredients and effects of drug	10	62
				13. Ingredient reliability lower for illegal drugs	10	
14. Costs/risks are the responsibility of the user	62	17. Descriptions of own irresponsible use	19	41. Mindset of user influences effects of drug	4	122
				27. Hospitalization	14	
				29. Overdose or over use and risk	23	
16. Responsible use as benefit/protection from risks	9	17. Descriptions of own irresponsible use	19	30. Harm reduction strategies	16	44
23. Specialized retailers as knowledgeable	3	15. Irresponsible retailers as risk	8			11

28. Addictive potential as risk/cost	12	33. BZP not addictive	3		15
45. Drug use as recreation	2	35. Witnessing damage done to others by drug use	17		19
36. Financial benefits of BZP use	27	37. Financial cost of drugs as cost	15		42
39. Legal status of BZP as benefit	39	38. Legal status of BZP as false assurance of safety	1		40
40. Curiosity/ experimentation as motive for initiation into drug use	21	22. Lack of experience as risk	5	18. Friends as source of information and experience	25
42B. Availability as benefit	12	42C. Availability as cost	10	42A. Availability influencing decision to use	17
					39

Table 5.9.
Codes extracted from BZP party pill user data set that form other themes

Other Themes			
Themes	Freq	Total freq	
Relativity of risk			
25. Risks relative to other drugs	37		
48. Risks relative to other activities	12		
24. Comparison of legal and illegal substances	30		79

Comedown as cost		
6. Comedown as cost	54	
7. Comedown – physical side effects	19	
8. Comedown – emotional side effects	6	
9. Comedown – psychological side effects	31	
10. Management of comedown effects	13	
30. Harm reduction strategies	16	139
Gateway effects		
32. Gateway as potential cost/risk	5	
34. Substitution of illegal drugs for BZP (reverse gateway or alternative)	20	
47. Substitution of alcohol for BZP	18	43
Health related costs of BZP party pill use		
29. Overdose or over use and risk	23	
46. Negative effects of BZP due to pre-existing medical conditions	6	
49. Negative health affects as cost	17	46
Drugs are ‘bad’ for you		
43. “Dirty” drugs	7	
5. ‘P’ makes people go “crazy”	8	
50. Drugs (other than P) make people go “crazy”	7	
51. Drugs as “bad” for you	23	
35. Witnessing damage done to others by drug use	17	62

Effects as cost/benefit

Within the over arching theme of a cost/benefit dichotomy are several sub-themes. The most prominent is that of cost-benefit analysis based on the effects of substances. For BZP party pill users the primary benefits of BZP party pill use were the subjective effects of the substances. At the same time, the effects of BZP party pills could be perceived as costs if they were subjectively considered to be unpleasant. Some participants spoke of some effects as benefit, and others as cost. Participant 22 chose a specific brand of party pill based on its effects.

Extract 42

- K Do you have a preference for a brand or type of party pill?
Like a favourite?*
- IE Um, I quite like Charge, cos it's just, it's not like lots and lots of energy, it just gives you a bit. And so I take that quite often cos I don't think it's that strong.*
- K Cool, ok, so you like it because it's not too intense?*
- IE You don't go like crazy off it, and you don't feel that bad the next day.*

Interviewee22.

The same participant avoided other brands of BZP party pill because she didn't like the effects they elicited.

Extract 43

- K Do you think there are any risks involved in using party pills?*
- IE Um, I reckon the ones where you have like illusions and stuff, and that's why I don't take them, cos I mean you could think something's happening that's not happening at all.*

Interviewee 22.

Participant 22 finds certain effects enjoyable while others are unpleasant. For her, the effects are both benefit and cost. The majority of participants made comparisons between the effects of different party pills or drugs when evaluating the costs and benefits of use. Participant 17 talks about enjoying the effects of BZP party pills, but describes how they can be too much of a good thing. The effects of BZP party pills are at first beneficial, but are perceived as a cost when they are no longer wanted. This extract demonstrates the relevance of context in the subjective appraisal of effects as cost or benefit.

Extract 44

- K Do you have a preference for a brand or type of party pill?*
IE Um, hm, I've had ones that have been more fun than others. Um, Whizzers, Whizzers are usually pretty fun.
K Yep
IE Um, yeah.
K Cool, and why are they more fun, what do you enjoy about those ones in particular?
IE Um, just, um how I'm feeling when I'm on them. And I guess that's also sort of affected by what I'm doing at the time but, I've always sort of thought back on times I've been on those as fun times, like I've always been happy while I've been on them, lots of energy, and usually um, afterwards it's pretty nice as well compared to some of the others which can be quite tricky to get to sleep on and things like that.
K Yep, ok, cool. So um, when they're good, and you're using them and you are out doing whatever, um, what, can you explain what it feels like, what that, what it is that um, the pills feel like, yeah, the good ones?
IE Um, a lot of energy. Um, which is really good, like you don't feel tired, especially if you're at like a, an event or something, and you don't want to miss it. Um, some, some pills make you feel more social to other people. I guess good mood, makes you happy. Um, makes you dance a lot more than you normally would, ha. Um yeah.
K Cool, that's good. Um, is there a brand or type of party pill that you really dislike?

IE Um, not really. I've had some that have um, just been a bit to strong I think and have lasted too long and sort of the nights finished but they're still affecting me, which is a bit unpleasant, but I guess that's not really, yeah I guess, not really, no.

Interviewee 17.

For participant 17 the effects that are a benefit of BZP party pill use at first, turn into a cost at the end of the night when they prevent him from sleeping. This was a common theme mentioned by the majority of participants. This demonstrates that the effects of BZP party pills can be beneficial or costly depending on the context of use. Participant nine describes an example of the importance of context of use when deciding whether the effects are beneficial or costly.

Extract 45

K Are there any advantages to using party pills do you think?
IE um they keep you up for ages if you take enough yeah
K yep
IE if you want to stay up for (I don't know) something
K yep
IE but um in saying that it's sorta easy- easily get distracted and that as well on them
K mm
IE 'cause I know one guy he um (.) he thought it'd be a good idea to take them and then try and study all night
K yep
IE and he just wasn't able to he jus- he just kept getting distracted and (.) s- wouldn't stop moving and that so
K oh wow that's interesting
IE yeah
K oh okay
IE I think it has different affects on different people like I've seen some people just go nuts on them
K yep

Interviewee 9.

For participant nine, the same effects were considered beneficial in one setting, and costly in another. He also acknowledges differences between individual users, where the effects of BZP party pills might affect different users in different ways. Going “nuts” on BZP party pills was considered a risk, where being “nuts” implies a lack of control of ones self or ones drug use with negative outcomes. Being “nuts” implies being crazy, which is assumed to be unpleasant. The effects of BZP party pills were perceived as both a benefit and cost of use. Whether an effect was considered to be a benefit or cost was dependent on the user’s subjective preference for the type of effect elicited by different pills, and also on the context of use. This dichotomy between cost and benefit of BZP party pill effects supports previous research findings that suggest risk perception is context dependent (Shewan et al., 2000) and weighed against the benefits or pleasures of substance use (Hunt et al., 2007 & White et al., 2006).

Costs and benefits associated with the quality and quantity of ingredients

The quality and quantity of ingredients in BZP party pills were often talked about in relation to their effects, and were seen as both cost and benefit. High quality and quantity of ingredients was perceived to be beneficial, resulting in maximum effect, while low quality and quantity was perceived to be costly, due to unwanted side effects or a lack of effect. Reliability of ingredients was also considered a benefit of BZP party pill use. Interviewee 32 discusses these issues regarding ingredients.

Extract 46

- K Cool, and do you have a preference for a specific brand or type of party pill?*
- IE Yep, um, I'd stick with ah Herbal Heavens pills. Ah, simply because there's no extra mixtures of everything in there. Um, and I know from ah radio stations and so on in the early days that bought pills and then sent them for testing and the measurements were well out on them. Herbal Heavens are exactly the quantity they say, so it's the same reaction every time. Ah, as for type of pill, it depends whether I want a little bit of extra energy for work to get me through. Ah, whether I want something to go out and put me in a dancy mood without having to drink, um, yeah.*
- Interviewee 32. (Industry employee)

However a small number of participants described high quantities of ingredients as cost because the effects could be too strong, and unpleasant.

Extract 47

- K Cool, is there a particular kind of party pill that you dislike? Or you know, a feeling it gives you that you don't like so much?*
- IE Um, I didn't like the Big Reds, um because they were um, a really large dosage, and I was like, each pill was big, and yeah. And they were some of the first ones that I ever took, and that said to take two, and so it was just like too much I think. [Ok so what did that feel like?] Yeah cos I didn't really know like how much to take, at, then. It was like, it just lasted for a really long time and I felt really sick the next day.*
- Interviewee 18.

In extract 47, interviewee 18 says that she did not like the effects of these party pills because they lasted too long and made her feel sick the next day. She attributes this to the product being a “really large dosage”, but also acknowledges that she was relatively inexperienced at the time, and that she did not know how much to take.

The quality and quantity of ingredients was a factor when users compared the effects of BZP party pills to illegal drugs.

Extract 48

K ... how do the affects of party pills compare to the affects of illegal drugs?

IE Maybe a slight difference [Yep] with the illegal drugs they've... probably got a higher amount of the ingredients than what the party pills do, [yep] umm, I think that the party pills have the same effect but not the high quality.

Interviewee 11.

In extract 48, participant 11 states that illegal drugs have both higher quality and quantity of ingredients compared to BZP party pills. She must make this assertion based on her subjective experience of the effects of both BZP party pills and illegal substances, as she can not be sure of the quality or quantity of ingredients in illegal drugs in the same way that she can for BZP party pills. This demonstrates the close relationship between subjective effects of substances and users assumptions around ingredients. Particular ingredients are assessed as costly or beneficial based on the effects users associate with them. The effects of illicit drugs are perceived as superior to those of BZP party pills, and are therefore more beneficial. These sorts of attitudes about ingredients might motivate BZP party pill manufacturers to make party pills with higher and higher doses of BZP in order to compete with illicit substances.

Risks as user's responsibility

Another apparent contradiction in the data is the idea that costs or risks are the responsibility of the individual user. Despite acknowledging the role that

ingredients play in the perceived good or bad effects of party pills, many participants spoke of irresponsible users as the cause of negative outcomes.

Extract 49

IE Like, [pause] how [pause] people are ending up in hospital because they've overdone the dosage or something, but I reckon that it's mainly the persons responsibility, they should read the label, [Yep] and, it's their problem really. [Yep] but that sounds a bit mean, but. Umm, like you got, you can't, I don't know anyone that is addicted to party pills. [Ok] But there's quite a few people that are addicted to illegal drugs. [Yep] And I find that, oh I believe that if they ban them people are just gonna either do it illegally or go back to the illegal stuff.

Interviewee 1.

In extract 49, interviewee one is explicit in placing responsibility for negative outcomes of BZP party pill use with individual users. She says that people who end up in hospital have “overdone the dosage” and they “should have read the label”, that “it’s their problem really.” A perceived lack of addictive potential for BZP further justifies her claim. At the core of this theme is the idea that the user can control BZP use, especially when compared to illegal drugs, and therefore any negative outcomes are the responsibility of the user. The majority of participants expressed this idea. However, the following extract is also from interviewee one:

Extract 50

K Is there a brand or type of party pill that you particularly dislike?
IE Umm, Up

- K *Up, and why would that be?*
 IE *I had allergic reaction to it*
 K *Oh wow. Can you explain what happened then?*
 IE *I had a full body rash, and my body was just in bad tremors, had to go to the hospital*
 K *Wow*
 IE *Yeah*
 K *Ok, do you want to tell me any more about that or*
 IE *Umm, that was really it really. I was a bit, I didn't really want to tell the hospital what I'd taken, and, but I told them and they just told me not to do it again.*
 K *Ok*
 IE *Yeah*
 K *Cool, cool, so that was a negative experience then*
 IE *Yeah, and it's really quite weird, because Up and the Goodstuff are made by the same person, just different ingredients*

Interviewee 1.

In extract 50, interviewee one describes how she came to be hospitalized as a result of BZP party pill use. She attributes her experience to an “allergic reaction” rather than irresponsible use. At the end of the extract she blames the ingredients for the reaction, even though the product which caused her “allergic reaction” was made by the same company as another product which she has had no problems with. Participant one demonstrates a clear self-other bias, where others who end up in hospital after BZP party pill use are irresponsible, but when she was hospitalized it was due to factors beyond her control.

Many participants blamed irresponsible users for the negative media attention to BZP party pills, despite admitting their own irresponsible use. In extract 51, interviewee four asserts that other peoples' irresponsible use creates the problems associated with BZP party pills in the media, while simultaneously acknowledging his own irresponsible use of BZP party pills.

Extract 51

- K Um, have you heard or seen in the media- what have you heard or seen in the media about party pills?*
- IE the stupid idiots that kind of just overdose and you're just like "oh dude! Seriously!"*
- K ((laughs))*
- IE "how hard is it?" I mean like as I said like I've had dumb experiences from taking too many but when- when you see people they're like "oh well they mixed it with alcohol" well I mix them with alcohol all the time, it was probably an excessive amount of party pills and an excessive amount of alcohol*
- K yep*
- IE it wasn't just like you know one bottle of wine and a couple of pills it was probably like an entire bottle of spirits*
- K yep*
- IE and yeah*
- K sure so mainly the media stories about people who are irresponsible when they use them*
- IE yes yeah*
- But they never blame it on the person they always blame it on the party pills.*

Interviewee 4.

Interviewee four positions his own irresponsible use as "dumb experiences", whereas the serious problems reported in the media are explained as being the result of "excessive" irresponsible use. Interviewee four justifies his own co-ingestion of alcohol and BZP party pills by trivializing it compared to the "excessive" amounts consumed by "stupid idiots" that overdose. When negative effects are blamed on people rather than substances, the insinuation is that the individual maintains control of the substance and its associated risks, and not the other way around. Individual control over BZP party pill use is central to this theme that functions to justify ongoing use of BZP party pills in the face of

evidence of risk. It also functions to justify an ongoing legal market place for BZP party pills. Supporters of the legal BZP party pill market were faced with a dilemma where they argued in favour of a legal BZP party pill market while acknowledging the risks of BZP party pill use. By making the risks of BZP party pill use the responsibility of individual users, industry supporters could argue that irresponsible users were ruining it for everyone else. The problems associated with BZP party pill use were removed from the product itself, and shifted onto individual users.

Responsible use as benefit, irresponsible use as cost

There is another sub-theme that relies on the idea of control of risk and it sits in opposition to interviewees' descriptions of their own irresponsible use practices. It is the idea that responsible use is beneficial and protective from risk.

Extract 52

- K Now are there any risks involved in using party pills do you think?*
- IE Um, I think if people are stupid with them and take more than their dosages, but I mean if you just have one I don't think too much can really happen. I mean some people might go overboard on the drinking with them, and that's where, you know they end up really sick or in hospital, but yeah, I think if you just have a reasonable dosage and you don't get too drunk it's you know, there's no risk.*

Interviewee 34 (Industry employee)

Interviewee 34 acknowledges the risks of BZP party pill use, and again they are attributed to other people's irresponsibility. She goes further though, saying that she believes there is "no risk" if a "reasonable" dosage is used, and

people do not get “too drunk”. This participant was an employee at a party pill retail outlet where she was responsible for selling, and advising users about, BZP party pills. The instructions on all BZP party pill products were explicit; BZP should not be consumed with alcohol. Despite this, participant 34 states that there are only risks if “people are stupid with them” or they go “overboard on the drinking with them”.

The apparent projection of risks onto other BZP party pill users despite acknowledgment of their own risky use practices at least reveals an awareness of the risks involved in BZP party pill use. Many participants demonstrated an understanding of the risks of use. Interviewee 23 was able to clearly identify the factors that contributed to her hospitalization after co-ingestion of BZP party pills and other substances.

Extract 53

- K Have you ever had a bad experience using party pills?
You've already mentioned that there was a time when it was too strong for you...*
- IE Yeah, um, I when we went to a festival one year, and um, it was a combination of factors, but um I had been working and I went up to, I flew somewhere in the north island, and then traveled that, then got a ride and then traveled that evening and didn't get there till ten, and it was new years eve. So I hadn't, I'd be traveling all day, hadn't really eaten much, and when we got there started drinking, and I took some herbals and then I was sick straight away, like my body just went 'Nah' and then had um, normal drugs, and then um, the next day I was fine, and then that night, so the night of the first, I got up in the middle of the night and fainted, then I fainted again and had a seizure, so um, and then I had to be taken to hospital, so um, yeah, I think a combination of not eating, not sleeping, herbals, drugs, and also it was really hot, it was*

new years, so a combination, but that kind of scared me and put me off herbals for quite a while, yeah.

Interviewee 23.

Extract 53 is interesting when examined in detail. The first five or six lines of her story act as a disclaimer, indicating that she is about to disclose something serious. She also differentiates BZP party pills from illegal drugs when she refers to illegal drugs as “normal drugs”. She chooses to use the term “normal” rather than ‘illegal’, or to simply the name the drug she took. This simultaneously minimizes and normalises the use of the drug she used that night. Illicit drug use is “normal” to this participant. Participant 23 describes herself fainting twice, having a seizure, and being hospitalized. She goes on to list all the factors that she attributes her bad experience too. Not eating and not sleeping are listed first, emphasizing their importance in her bad experience, while “herbals” and “drugs” are mentioned in the middle of the list. Throughout extract 53, interviewee 23 identifies several factors that contributed to her hospitalization, however at the end of the extract she states that the experience put her off using “herbals” for quite a while. She deflects the responsibility for the negative consequences away from her decision to use on an empty stomach, while sleep deprived, in a hot environment, in conjunction with other substances, and instead singles out the BZP party pills as being the thing that scared her during that experience.

This extract also has significance in terms of harm reduction and the aims of this thesis. Interviewee 23 demonstrates that harm reduction strategies are not always employed, despite apparent awareness of them. Harm reduction was

often discussed as something that others should adhere to, but not the self. For interviewee 23, BZP was used as well as, rather than instead of other drugs, indicating that BZP was not being used as a harm reducing alternative to illicit drugs. However, poly-drug users are still able to reduce their risk of harm in other ways, attending to their hydration levels, eating, taking time out and getting adequate sleep. Interviewee 23 did not appear to employ any of these harm reducing strategies however, resulting in her hospitalization.

Availability as cost/benefit

The availability of substances was another dichotomous sub-theme. Some interviewees said that the availability of a substance influenced their decision to use it or not, where increased availability led to increased use. High availability was seen as beneficial for some users, while low availability was a cost. However, for a small number of interviewees (3) high availability was perceived as cost. They felt that BZP party pills were open to abuse due to their high availability. Interviewee 16 explained why she thought increased availability was risky.

Extract 54

- K okay, so I was going to ask you what do you think about the media attention to party pills, so from what you've just said does that mean you think it's not accurate?*
- IE well I think maybe like- what they- like- in a way it is accurate because some people are just idiots on it but*
- K yeah ((laughs))*
- IE like if you- I reckon maybe if they did stuff like um didn't sell them in packs of six*
- K right yep*

- IE because then- that gives people- you know they can take six at a time and that's gonna be real bad but maybe just sell them in the dosage that they should take for that one night*
- K okay, yeah, sounds like a good idea*

Interviewee 16.

For interviewee 16 decreasing the availability of BZP party pills is a way of protecting “idiots” from overdose. Availability was generally only thought of in terms of how much effort was required to obtain a substance, and the less effort the better. Only three interviewees, like the one above, recognized that increased availability could be related to increased abuse potential. For these participants availability was seen as increasing the risk of abuse. High availability and the legal status of BZP might influence risk perception due to high levels of exposure due to the prevalence of retail outlets selling BZP, and the amounts available for sale in bulk packs like those discussed by interviewee 16. These bulk packs are also not in line with the harm reduction philosophy being promoted by the BZP party pill industry.

Experience as benefit

Many participants said that their primary motivation for trying BZP party pills was simply curiosity or experimentation. The decision to initiate BZP party pill use was fundamentally based around the benefits of experiencing their effects.

Extract 55

- K And why did you decide to start using party pills?*
- IE Um, because they sounded like fun, or, just kind of curious I guess. Just wanted to try them.*

- K What was it that sounded like it would be fun to you? What did you hear that you thought would be fun about them?*
- IE Um, like you're just really energetic, and, um, I guess you just kind of forget about everything that's going on and just enjoy yourself.*

Interviewee 24.

However for a small number of participants, a lack of experience when using BZP party pills or other substances was considered risky.

Extract 56

- K Do you think there are any risks involved in using party pills?*
- IE Any risks?*
- K yeah like dangers or anything you have to be cautious about*
- IE yeah I suppose there is a risk*
- K yeah what what would you say would be a risk of using party pills?*
- IE well if it was your first time using party pills, only try one*
- K yep*
- IE and then the next time you try them try two*
- K yep*
- IE and then if you're still not feeling anything you can try like three and then once you start to feel something start go a bit harder and kind of find your limit*
- K okay*
- IE but the risks, it's pretty much just taking more than what you are ready for*
- K okay so [you mean like*
- IE [it's not understanding the drug and not having experience with it, that's a risk.*

Interviewee 5.

In extracts 55 and 56 experience is considered a benefit for BZP party pill use. Initiation into BZP party pill use was often driven by the desire to experience the effects of use; however the user's lack of experience on that first occasion was considered a risk. In terms of harm reduction, inexperience is risky

as new users do not know what dose to take in order to elicit a pleasurable (or beneficial) effect, risking overdose leading to unpleasant (or costly) effects. Harm reduction strategies around initiation of drug use recommend taking minimal doses, as suggested by interviewee 5, and in the company of more experienced users. However BZP party pills come with explicit directions around dosage, which should remove the risks of overdose to inexperienced users. That inexperience remains a risk of BZP use according to interviewee 5 is further evidence that minimal attention is paid to instructions for use and harm reduction strategies around BZP. The instructions for BZP use do not appear to be central to BZP user behaviour.

Financial and legal costs/benefits

Many interviewees considered the financial cost of BZP party pills a benefit of use, usually when compared to the cost of illegal drugs. The financial cost of drugs in general was considered a cost of drug use. The financial benefits of BZP party pill use were frequently mentioned in association with the benefits of its legal status.

Extract 57

- K Cool, and why did you decide to start using party pills, the first time?*
- IE Um, I'd already tried illegal drugs [laughs] and these were just an alternative that were cheaper and they were legal as well, so it, yeah, it just seemed normal to you know, try them out, yeah.*

Interviewee 23.

Extract 58

- K* Why did you decide to start using party pills, like the first time that you used them?
- IE* Um, because they were cheaper than ordinary drugs, and they were a lot easier to get, um, so [inaudible] I think it's accurate, more accurate to say they're actually a lot safer to get, not necessarily easier to get, but it certainly beats ah, you know, associating with ah convicts, or you know, gang members or, um, going to places where there's weapons and barking dogs, you know.
- K* Sure, so it was kind of an access issue for you?
- IE* Ah, it was a, I guess it was a safety issue really. It was ease and safety of access. Mm, and also it was a lot cheaper I guess too.

Interviewee 21.

In extract 57, interviewee 23 says that it seemed “normal” to try BZP party pills given that he had already used illegal drugs, and party pills were cheaper and legal. The implication is that it would be *abnormal* for someone who already uses illegal drugs *not* to try BZP party pills.

In extract 58, interviewee 21 compares dangers of accessing “ordinary” drugs to the relative “ease and safety” of buying BZP party pills. Use of the term “ordinary” in extract 58 functions in much the same way as the word “normal” in previous extracts. These words portray illicit drug use as benign and relatively uneventful. This language normalises the use of illicit substances and plays down its importance.

In contrast to extracts 57 and 58, interviewee three felt that the legal status of BZP party pills gave users a false assurance of safety.

Extract 59

- K so do you think that um as it is at the moment that there's sort of not enough information out there for people?*
- IE I think that people assume that because it's legal it's fine like it's- it's like alcohol you know like people just abuse it because it's so okay like so socially acceptable but...*
- K okay. So when you say people abuse it what do you mean by that?*
- IE They take it sort of lightly like they- they don't think like I'm- this could, this is going to affect me in a positive or negative way like they just think like you know, the police say it's okay or whatever*
- K yep*

Interviewee 3.

This is the only interviewee who suggested that there were risks associated with the legal status of BZP party pills. It is interesting that of all the risks and costs identified in the data set, only one person linked them to the legal status of the substance. Even when high availability of BZP party pills was seen as a cost, this was not attributed to their legal status. It is possible that users avoided discussing legal status and risk because this could have undermined the argument for an ongoing legal BZP party pill market in New Zealand. We do know however that the majority of the sample spoke of the legal status of BZP party pills as beneficial.

These dichotomous themes around BZP party pill use demonstrate the relevance of both costs and benefits, and context, when users make decisions about BZP party pill use. Risks and benefits of BZP party pill use are assessed in similar ways to those of illegal drugs, where both risks and benefits are reviewed, and are highly dependent on context (Hunt et al., 2007; Shewan et al., 2000; White et al., 2006).

Relativity of risk

Several other sub-themes were identified that are outside of the theme of dichotomy. A strong theme in the data set was the relativity of risk. Risks of BZP party pill use were often compared to risks associated with other substances, and other common activities. Interviewees 33 and 31 were typical in the way they compared the risks of BZP party pills with other substances.

Extract 60

K Now are there any risks involved using party pills do you think?

IE Um in general or for me individually?

K Um, well both, start with general risks.

IE Well I think that combining them with alcohol would be a risk. Um or any other substance, to be honest. I think taking too many would be a risk. Other than that I think that if you're going to be taking any kind of mind altering substance be it alcohol or anything else, then there are risks associated with the fact that you're doing that and you need to monitor your own condition and make sure other people know you're doing it.

Interviewee 33.

Extract 61

K Now what have you heard or seen in the media about party pills?

IE Well just, they're saying they're they're, in the media that people are abusing them, well, well ok, well, for me I say well why the heck introduce it into the country and into the market if they are gonna take them back out again. Cos they're gonna have to, what are they gonna do with alcohol, cos people abuse alcohol a lot, very much.

K Yep sure.

Interviewee 31.

The risks of BZP party pill use were also discussed in relation to dangers associated with other activities.

Extract 62

- K Do you think there are any risks involved in using party pills?*
IE Ah well, do I think there's any risk involved in party pills?
K Yeah
IE Ah, you mean just generally?
K Yeah, I guess like what are the
IE I think there's risks in driving a car.

Interviewee 21.

Extract 63

- K Do you think there are any risks involved in using party pills?*
IE Aum, not as such. Um, I mean there's risks with drinking too much water, there's risks with choking on peanut butter, um, ah, if used aum correctly then no, aaum, even if used incorrectly, ah I think there is very little risk.

Interviewee 32 (Industry employee).

Extracts 62 and 63 demonstrate how interviewees rationalise the risks they take when using BZP party pills. In extract 62, participant 21 compares the risk of BZP party pill use to that of driving a car. Obvious parallels can be drawn between the two activities - there are risks associated with both, but people continue to do them anyway. Making the risk of BZP party pill use relative to other everyday activities serves to put the dangers of BZP party pill use into a context of a risk laden world. The function of this relativity of risk is to make BZP party pill users blend in to a society where others are risk takers too. In their awareness of their own risk taking, the interviewees are saying they are no different to anyone else, that everyone takes risks.

Comedown as cost

The benefits of BZP party pill use were more salient in the data set than the costs. The benefits of BZP party pill use were explicit, such as the advantages of their legal status, the financial benefits, the perceived control over the effects and the ingredients. As described previously, when the costs of BZP party pill use were discussed they were often qualified as applying to other people or juxtaposed against other risks in society. However there was one very salient risk or cost of BZP party pill use that emerged as the primary cost. The comedown or hangover associated with BZP party pills was described by the majority of interviewees, and was frequently described as a combination of physical, emotional, and psychological side affects that affected users the day or days after BZP party pill use. In extract 64, interviewee 38 describes mainly emotional and psychological affects.

Extract 64

- K ... some people talk about a come-down associated with party pills, what are you're experiences of coming down off party pills?*
- IE Um, yeah, you definitely do have- especially when you first start taking them there is that definitely that- we call it the spiral (laughs) everyone jokes about it. You sort of feel, its not depressed but you feel anxious about stuff and you can't put you're finger on why you feel anxious and everything- little thing that would not normally bother you bothers you. And do get a little bit depressed but um I don't get that very often now, obviously because maybe I take them regularly. And when I do get it I know what it is and I can work through it. But I- but yeah you definitely do get that spiral. Some people cope with it and some people don't. yeah.*
- K Okay, cool.*

Interviewee 38.

In extract 65, interviewee two also describes a combination of effects. These descriptions were common, with psychological side affects reported most frequently. An inability to sleep despite exhaustion was the problem mentioned most often.

Extract 65

- K ... you mentioned the problems after, tell me about that, what are you referring to there?*
- IE Ahh, well for me I had real loss of appetite, struggle to concentrate on most things*
- K yep*
- IE I was very glad I didn't have work the day after, but it's just general just a drained feeling, you just feel less active (.) more... it's... it's even hard to even sleep just to try and sleep it off, and you're too scared to drink (before) the pills might have another effect on you, you have to wait a long process to get them to go through your body*
- K Yep*
- IE And it's very hard to eat when you've got no appetite and your whole body wants to shut down. Even though it's hard to.*
- K yep*
- IE at the same time, so it's sort of a ying-yang effect*
- K (laughs)*
- IE you wanna sleep but you can't at the same time*
- Interviewee 2.

Some participants found they could manage the negative comedown effects of BZP party pills using various harm reduction methods.

Extract 66

K Okay, and now some people talk about a come down associated with party pills, what are your experiences of coming down off party pills?

IE Um. My, personally it hasn't been too bad. But um I, a lot of that is to do with what you do when you're on them. Um, if you don't hydrate yourself properly, if you don't drink enough water, yeah, if you stay awake for too long, yep, you're going to have a bad come down.

Interviewee 41.

Extract 67

K Cool now some people talk about a come down associated with party pills, what are your experiences of coming down off party pills?

IE Um I don't really have a come down because I take them gradually over the night and then I normally work it off, by dancing or whatever. So, by the time I get home I'm normally just (out to it), I'm tired so, yeah.

Interviewee 43.

For these participants and several others, staying hydrated and monitoring their dose was enough to alleviate the comedown symptoms the next day.

These BZP party pill users recognized the costs of use and employed harm reducing strategies to minimize them.

Gateway out, not so much gateway in

Many participants said that they used BZP party pills as an alternative to illegal drugs or alcohol, and some claimed to have used BZP party pills to reduce or stop their use of illegal drugs. This reverse gateway was considered beneficial to users, however only a small number acknowledged a potential gateway effect from BZP party pills to illegal drugs as a possible risk, despite the majority of BZP

users continuing to use illicit substances. This supports findings from the previous study that BZP party pill users are poly-drug users.

Extract 68

- K Um why did you decide to start using party pills?*
IE ah, just to get a buzz going on
K yeah? So, can you explain um sort of what the situation was that led to you using them for the first time?
IE um just as a substitute for drugs 'cause you know I had to quit drugs back in the day so I started to do party pills instead.

Interviewee 5.

Extract 69

- K Ok, cool. Now do you think there are any advantages to using party pills?*
IE Advantages, I think there's advantages in the way it's, some people are using them to keep off, real drugs so to speak, like actual illegal drugs. I think that's an advantage because, it doesn't cause people to get mixed up in, wrong places.
K Yeah sure.

Interviewee 27.

In extract 68, interviewee five spoke of his personal experience of using BZP party pills to gateway out of illegal drug use, while interviewee 27 said that she was aware that others were using BZP party pills as a quit tool. The majority of references to gateway effects of BZP party pills regarded reverse gateways from illegal substances to BZP party pills. Very few acknowledged that BZP party pills had the potential to provide a gateway in to illegal drug use. In fact, when the risk of gateway effects were mentioned by some interviewees, they specifically said that they did not believe BZP party pills provided a gateway to

illegal drug use. This is contrary to the results of study 2A, where the majority of BZP party pill users were poly-drug users, and rates of illicit drug use amongst BZP users were no less than illicit users who did not use BZP. Some interviewees substituted alcohol for BZP party pills.

Extract 70

K Now um what do you think the advantages of using party pills are?

IE Ah, for me it's the ah not drinking. Because I'm not a very good drinker. And it actually makes me qu- a lot more social without having to have the drink. Um, you can go out and still have a good time and relax but you're still well aware of what you're doing, or for me I am. Whereas if you're drinking (laughs) you sometimes lose control of what you're doing. For me, that's, that's benefits of them. Yeah.

K Okay, cool.

Interviewee 38.

In extract 70, interviewee 38 describes how BZP party pills are a preferable alternative to alcohol. Several interviewees described using BZP party pills as an alternative to alcohol; often these interviewees identified themselves as problem drinkers. However, the majority of interviewees chose to mix BZP party pills and alcohol.

Health related costs of BZP party pill use

Interviewees sometimes acknowledged that there were health related costs associated with BZP party pill use. Overdose or over use of BZP party pills was the most commonly mentioned health related cost.

Extract 71

K ...what have you heard or seen in the media about party pills?

IE Oh only bad stuff. I've seen a couple of things on TV with people um and it's all bad. But then again its always been- it's obviously people just not being responsible with them. Young people that have gone crazy and taken six or seven or eight or nine! And then drunk hard or taken something else with them. It's ah- yeah. Unfortunately it's just bad publicity.

Interviewee 38.

The comments about overdose in extract 71 were typical. Overdose was almost always discussed in relation to others irresponsible behaviour, usually involving mixing BZP party pills with other substances, often despite acknowledging engaging in similar behaviours themselves. Interviewee 38 acknowledges the risk of overdose, but finishes her statement by claiming the risks are “just bad publicity”. Interviewees were forced to admit the risk of overdose associated with BZP party pills because of several highly publicized overdose cases in the media. These overdoses, and many of those in hospital studies, were frequently the result of co-ingestion of BZP with other substances. Co-ingestion is the primary risk for BZP overdose. Extract 71 demonstrates how interviewees attempted to contextualize the undeniable risk of overdose, by again placing responsibility for the risks of BZP use with individual users, despite frequently engaging in co-ingestion behaviour themselves.

A small number of interviewees mentioned the risks of BZP party pill use for people with pre-existing medical conditions.

Extract 72

- K* *Ok, so what do you think are the main dangers around taking party pills?*
- IE* *Um, taking to many. Or mixing them with something else. And, I know you're not supposed to take them if you've got things wrong with your heart.*
- K* *Yeah*
- IE* *Yeah*

Interviewee 18.

This is another example of interviewees distancing themselves from the risks of BZP party pill use. The substance itself is not to blame for negative consequences, rather pre-existing medical conditions make use of the substance dangerous.

There were cases where negative health affects were attributed to the substance itself. Interviewee nine no longer used BZP party pills because of the negative effects they had on him.

Extract 73

- K* *...are there any risks involved in taking party pills do you think?*
- IE* *yeah yeah yeah there are*
- K* *yeah, what do you think there are, the risks?*
- IE* *um, 'cause I know myself it's sorta it's- um I haven't taken them for a while now 'cause it started- it started stuffing up my throat and that*
- K* *yep*
- IE* *'cause it would get so dry*
- K* *yep*
- IE* *and it was just like getting ridiculous and I was like "nah not going to do this anymore" and yeah*
- K* *yep*

- IE so yeah there's definite health risks there and also I've seen
like things on 20/20 and that and the dude in hospital it's
like- it's not worth it
- K yep
- IE kinda thing, so
- K Cool, okay.

Interviewee 9.

The costs outweighed the benefits of use for this interviewee, and he stopped using BZP party pills. This interviewee did not attempt to attribute the risks of use to factors other than the substance itself. For him, the only way to manage the risks was to stop using the substance. His abstinence from BZP party pill use means there is no need for him to justify the risks of use, and he attributes the negative affects he suffered to his use of BZP party pills. These attributions are made from his own experiences of BZP party pill use causing harm to his throat, and also images from the media. As discussed in chapter 2, media messages around BZP party pills have been problematic, with current affairs and news programmes choosing to focus on the negative effects of BZP party pills. The overdose case documented in the 20/20 programme referred to by interviewee 9 was later revealed to involve use of multiple substances over a prolonged period, however BZP is attributed as the cause of the overdose by interviewee 9.

Drugs are 'bad' for you

The final theme identified in the data set centers mostly around the use of illegal drugs, usually discussed as alternatives to BZP party pills. Often drugs that were perceived to be 'harder', such as methamphetamine (P) were

described as “bad” for you, that they make people go “crazy”, and interviewees claimed to know this because they had witnessed their effects on other people.

Extract 74

- K ... would you try um a drug that you've never used before as a substitute for party pills
(.)*
- IE What if it was P?*
- K like meth yeah, would you try meth?*
- IE na I wouldn't try meth ((laughs))*
- K okay, so methamphetamine's not a um- isn't an option for you?*
- IE nah hell no*
- K and why not?*
- IE um 'cause I've seen P fries and I've seen what it does to people*
- K yep. And it's obviously not good?*
- IE: yeah well I've been like sitting around with like mates who've started frying up P on the pipe and then you know most of the time they're all there but over the long run they'll just get fucking holes in their brains and shit*
- K okay, so the effects of um methamphetamine like long-term are like really bad?*
- IE yeah and 'cause some people can't- (.) or nah I suppose they can, but some people go crazy with it*
- K yep*
- IE they go fucking crazy and it's scary*
- K yep. Okay so it's completely out of the question, you wouldn't even try it?*
- IE nah I would never do P.*

Interviewee 5.

Extract 74 was typical. The way interviewees spoke about ‘P’ contrasted with their discourse on BZP party pills. ‘P’ was perceived to be a substance over which the user had no control, negative outcomes of ‘P’ use were not the fault of the user, but the substance itself. This is in direct opposition to participants comments around BZP party pills, where BZP harms were the result of

irresponsible users who should have taken precautions to avoid negative outcomes of BZP party pill use. The fundamental difference between 'P' use and BZP party pill use, according to participants, is that 'P' is an uncontrollable substance that can take over a person, where there is no excuse for a lack of control over BZP party pill use. Negative outcomes from BZP party pill use are caused by the user, not the substance.

Extract 75

K What about methamphetamine or P, would you ever use that instead of party pills if they're banned?

IE Um, no.

K Why not?

IE Um, because I'm probably the type of person that you know I'd, I'd no doubt I'd be one of those people that smoke the P and then I'd be one of those nutty ones, grab a gun and go shoot someone.

Interviewee 42.

In extract 75, interviewee 42 imagines the effect 'P' might have on him if he smoked it, presumably basing his prediction on high profile 'P' related violent crimes in the New Zealand media. Coverage of these crimes might have shaped the stigma attached to 'P' use in New Zealand.

The major theme running throughout this data set was that a dichotomy exists in the way these BZP party pill users talked about the costs and benefits of BZP party pill use. Acknowledgment of risk was usually qualified by context and the users control over the substance was emphasized. Negative outcomes of BZP party pill use were the responsibility of individual users, and some interviewees managed their own costs of use through harm reduction strategies,

such as avoiding co-ingestion with other substances, following manufacturer instructions around dosage, and monitoring hydration levels. The dichotomy exists because the costs of BZP party pill use are undeniable given media coverage of BZP party pill overdoses and hospitalizations (Chalmers, 2006; Chalmers, 2007; Crewdson, 2007; The Dominion Post, 2007). Users are therefore forced to acknowledge these risks, but must rationalize them in order to feel comfortable with their ongoing use of BZP party pills. This dichotomy illustrates how BZP party pill users justify their continued use of what they perceive to be a risky substance.

The results of this study also confirm that BZP party pill users assess the costs and benefits of BZP party pill use in similar ways to illicit substance users in previous studies (Hunt et al., 2007; Shewan et al., 2000; White et al., 2006). White et al. (2006) describe how illicit substance users assessed the costs of drug use against the benefits. The costs of illicit substance use were different to the costs of BZP party pill use in the current study, largely due to the fact that the costs of illicit substance use primarily related to the unregulated drug market and uncertainty of ingredients. However the benefits of using illicit substances in White et al.'s (2006) study mirror those identified in the current research. The acute affects of substances were identified as the main benefits of drug use, as was the case for BZP party pill users in this study.

The findings in this study are also similar to those described by Hunt et al. (2007). Party drug users in Hunt et al.'s (2007) study weighed up the risks and benefits of drug use, and when using made efforts to manage the risks. Many

BZP party pill users in this study talked about strategies to minimize the harm of BZP party pill use. Hunt et al. (2007) also described the way drug users discussed the risks of drug use in relative terms, comparing the risk of drug use to other drugs and other risky activities. Benzylpiperazine party pill users employed the same method of normalising their behaviour, by comparing BZP party pill use to use of other substances and other daily activities like driving a car. When BZP party pill users talk about the risks involved in other daily activities, they are attempting to normalise the perceived risk of BZP party pill use by putting it into a context of a world full of dangers for everyone. Their message is that risk taking is normal, everybody does it, so what's the big deal?

Shewan et al. (2000) described the importance of context in risk perception among ecstasy users. They found that ecstasy users considered drug, set, and setting when assessing the risks around ecstasy and other drug use. The BZP party pill users in this study also talked about the relevance of ingredients (drug), the user (set), and to a lesser extent the context of use (setting) when evaluating the risks of BZP party pill use. Benzylpiperazine party pill use was perceived to be relatively safe compared to illicit substance use because users felt confident of the quality and quantity of ingredients. Risks were primarily the responsibility of the user, and when things went wrong for others it was described as being the individuals fault. However, when users experienced problems with BZP party pill use themselves, they tended to blame the ingredients or other factors (such as lack of food or sleep). This demonstrated that risks associated with drug and set were subject to a self-other

bias for BZP party pill users. Shewan et al. (2000) also described ecstasy user's awareness of harm reduction strategies, but found that they were not always employed. Benzylpiperazine party pill users in this study were also aware of methods to minimize harm from BZP party pill use, and pointed to irresponsible users as the cause of negative outcomes. Despite this, many described instances of their own irresponsible use, with several resulting in serious consequences, including hospitalization. This demonstrates that an awareness of harm reduction strategies does mean they are always put into practice. Akram and Galt (1999) have described how recreational drug users pick and choose which harm reduction strategies to apply on each occasion. Three quarters of Akram and Galt's (1999) sample (n=125) used multiple substances together, apparently ignoring the harm reduction strategy that recommends using only one substance at a time. However these same poly-drug users applied many other harm reduction strategies on those occasions, such as monitoring hydration, making use of 'chill out' space, and keeping cool. This is further evidence that awareness of harm reduction practices does not necessarily mean each strategy will be applied. Poly-substance users are still able to reduce their risk of harm from drug use, even poly-drug use, by applying other harm reducing strategies.

In summary, BZP party pill users in this study were not ignorant of the risks of BZP party pill use, but they framed their discussions of risks in terms of others irresponsible use behaviours, and emphasized individual control over the risks of use. They normalised the risks of BZP party pill use by drawing

comparisons between other drugs and other risky activities. This functioned to justify their use of BZP party pills despite their awareness of the possible harms.

There are limitations of the current study. Firstly, the nature of qualitative research is such that ideas expressed by participants cannot be taken as representative of all BZP party pill users, and the conclusions from this study should not be generalised to the general population of BZP users. Secondly, coding of participant interviews was conducted by a single researcher, exposing the analysis to potential bias. However the analysis was conducted under the guidance of an academic supervisor, and the detailed presentation of results, including quantitative summaries of reported behaviour and codes or themes, should provide extra transparency to the analysis.

Implications

The BZP party pill users in this study appear to be similar to those described in study two in terms of their recreational drug use habits. Benzylpiperazine party pill users in the sample tended to fulfill the various definitions of recreational drug use from previous research (Boys et al., 2001; Duff, 2005; Nicholson et al., 1999). The current sample is similar to those in previous studies in that a variety of substances (primarily cannabis, amphetamine type stimulants and hallucinogens) are used semi-regularly by people whose lives do not appear to be significantly affected by their drug use. Benzylpiperazine party pill users are, typically, recreational poly-drug users.

The attitudes towards risks of BZP party pill use described by this sample have important implications for harm reduction. Awareness of risk does not appear to be a deterrent from use of BZP party pills; however awareness of harm reduction strategies does not appear to prevent risk taking entirely either. Harm reduction seemed to be a policy that was applied to others rather than practiced for themselves. Unlike illicit substances, BZP party pills come with explicit directions for use⁶. These directions are effectively harm reduction strategies, many of which are also relevant to the use of illicit substances. The majority of participants reported knowingly ignoring at least one of the directions for BZP party pill use, usually by consuming alcohol with BZP party pills, or taking more than the recommended dose. As a result, many participants reported avoidable negative consequences of BZP party pill use, most commonly to do with comedown effects. But some participants reported serious negative outcomes, including hospitalization. A possible explanation for the apparent disregard for harm reduction around BZP party pill use is that its legal status was providing users with a false sense of security. Benzylpiperazine party pill users may have felt that if the substance is legal, then it should not be that dangerous.

There are several post-BZP ban implications to be considered. If participant's responses are taken at face value, then an increase in the use of ecstasy and various other illicit substances could be expected after BZP is banned. However methamphetamine (P) was an unpopular alternative to BZP. There appeared to be sufficient demand to support a black market for BZP party

⁶ Directions for use usually give recommended doses, instructions around not mixing with alcohol and other substances, drinking water, eating food, and maximum number of doses that should be consumed over specific time periods.

pills, and some evidence of a supply. However it is important to remember that participants in this study had a vested interest in maintaining the legal BZP party pill market, as they were all regular BZP party pill users. Each had been briefed before the interview as to the purpose of the study, and all were aware that it was funded by, and would be reported to, the New Zealand Ministry of Health. One participant even addressed the Associate Minister of Health (HR Jim Anderton) directly during the interview, saying *“Yes Mr Anderton, I would increase the black market.”* It is possible that participants were motivated to inflate their willingness to participate in a black market or to exaggerate their intent to use illicit substances as alternatives to influence decision makers who might read the results of the study. Also, many participants already used illicit substances, and it was these participants who tended to choose illicit alternatives to BZP party pills. This means that a likely scenario after BZP is banned would be an increase in the frequency of use of illicit substances for existing users, rather than an overall increase in the prevalence of illicit substance use.

It is also important to consider how long any post-BZP ban effects might last. We are unlikely to see a permanent increase in illicit substance use as a result of a BZP ban. Illicit substance use has not measurably decreased in New Zealand since the introduction of BZP eight years ago (Gee & Fountain, 2007; Theron et al., 2007; Wilkins et al., 2006), so any increase in illicit substance use or black market activity will likely be a temporary rebound effect. Alternatively, eight years of legal ‘pill popping’ might have created a generation of substance users who would otherwise have avoided substance use. It remains to be seen

whether these individuals will continue to rely on this form of substance use in their social lives.

Regardless of the impact BZP party pills have had on recent users, a BZP ban could prevent a new generation of young people becoming accustomed to legal pill taking as a social activity. Normalisation of pill (and in fact powder) use for people who would otherwise have chosen not to use illicit drugs is a concern. The legal status of BZP party pills and powder blurred the line between legal social use of substances like alcohol, and illicit substance use. However the emergence of new BZP-free party pill products after a ban could invalidate this argument, and continued supply of legal recreational pills and powders could see the enduring normalisation of recreational substance use.

The findings from the analysis of BZP party pill users risk perceptions support the implications from previous research that found that both costs and benefits are assessed when drug users decide whether or not to use a drug (Hunt et al., 2007; Shewan et al., 2000; White et al., 2006). This indicates that BZP party pill users assess the costs and benefits of substance use in much the same way as illicit users. The benefits of BZP party pill use were emphasized over and above the risks. If all substance users are motivated by benefit, then educating around risk is unlikely to prevent use, and, as concluded by previous researchers (Duff, 2003; Hunt et al., 2007; Shewan et al., 2000; White et al., 2006), harm reduction messages that acknowledge the benefits of substance use are likely to be most effective.

Overall, the implications from study three are that BZP party pill users tend to be recreational poly-drug users who assess the costs and benefits of substance use in similar ways to recreational drug users in previous studies (Hunt et al., 2007; Shewan et al., 2000; White et al., 2006). Because of their existing illicit substance use, the outcome of a ban of BZP is likely to be a short term increase in the frequency of illicit substance use, rather than an increase in the overall prevalence of illicit drug use.

Chapter six

General discussion and postscript

This research was initially inspired by the need to empirically test (and perhaps even validate) anecdotal claims made in the media about BZP party pills. The major issues were whether BZP party pills were reducing illicit substance related harm by reducing illicit substance use, and whether banning them would therefore lead to an increase in use of illicit substances (especially methamphetamine or P as the party pill industry claimed). From these issues I derived five research questions. In study one I asked how BZP party pills relate to illicit substances as framed in their advertising. This qualitative analysis of BZP party pill marketing material described the kind of discourse the party pill industry promoted around their products. Advertisements used language associated with a culture of illicit drug use, and likened the effects of their products to those of ecstasy and amphetamines. The marketing material appeared to target people with an understanding of recreational drug use, and positioned the products as part of a recreational drug menu, rather than a harm reduction tool. The messages in the advertisements for BZP party pills were somewhat different from the harm reduction message being broadcast through the media by the party pill industry. It was necessary to investigate whether users of BZP party pills were in fact recreational drug users, like those targeted in the marketing material.

Study 2(A) quantitatively examined whether BZP party pill use was associated with reduced illicit substance use, and therefore, reduced harm, as

claimed by BZP party pill industry representatives (Bowden, 2007a; 2007b; New Zealand Press Association, March 2, 2007). Current BZP party pill users were indeed likely to be recreational poly-drug users. When responses from all illicit drug users were analyzed, those who used BZP party pills used illicit substances equally as often as illicit users who do not use BZP party pills. Benzylpiperazine party pill users also tended to use a wider variety of illicit substances than illicit users who did not use BZP party pills. There was no evidence that BZP party pill use was associated with reduced rates of illicit substance use, indicating that BZP party pills were not fulfilling their harm reduction purpose. These findings appeared to support the proposed ban of BZP party pills as there did not appear to be any evidence supporting the potential harm reduction benefits of a legal market. However, the lack of harm reduction benefit from BZP party pill use does not necessarily justify a ban of BZP products, as such a ban has the potential to increase harm, as was investigated in studies 3A and 3B. This will be discussed later in this chapter. It was important to examine possible explanations for the patterns of substance use demonstrated by participants in study 2(A). Risk perception was one psychological construct that could explain these patterns of use, so study 2(B) examined how participants perceived the risks of drug use.

Study 2(B) quantitatively investigated the relationship between the perceived risk of substance use and actual substance use behaviour. The factor analysis of risk ratings for substances revealed that people likely consider the legal status of a substance when evaluating risk. Despite BZP's similarity to

illegal stimulant drugs (Campbell et al., 1973; Brennan et al., 2006; Baumann et al., 2005), participants rated the risks of BZP party pill use in similar ways to the other legal substances in the questionnaire. This indicated that the legal status of BZP party pills might have had an impact on how participants rated the risks of use, likely in the direction of underestimation. There was no significant relationship between risk perception and rates of BZP use, likely because the questionnaire did not account for the benefits of use. The costs and benefits of BZP use were investigated more thoroughly in study three.

The findings in studies 2(A&B) appeared to support the ban of BZP party pills on the grounds that they were not reducing illicit substance use, and that their legal status could lead to an underestimation of the risks of BZP party pill use. Likewise, however, making BZP party pills illegal could increase the risk of harm to users via the negative legal consequences of acquiring and using an illegal substance. Benzylpiperazine party pill users would be forced to source BZP party pills from illicit drug dealers, increasing access to other more harmful illicit substances. There was debate over other potential outcomes of a BZP ban. Through the media, the BZP party pill industry claimed that banning BZP would cause an increase in illicit substance use, primarily methamphetamine (P) (Barnett, 2007; Bowden, 2005, 2007b; Drought, 2007; Nippert, 2007; New Zealand Press Association, 2007; Thompson, 2006), and drive BZP onto the black market (Crewdson, 2007; Hamilton, 2006; New Zealand Herald, 2006; New Zealand Press Association, 2006; Nippert, 2007; Thompson, 2006). It was important to test the likelihood of these outcomes prior to the ban being imposed

so that agencies could be prepared for possible outcomes. Studies 3(A&B) qualitatively examined how BZP party pill users intended to react to a BZP party pill ban, and how they evaluate the costs and benefits of BZP party pill use. Participants indicated that they would use a combination of alternatives to BZP party pills, illegal drugs, black market BZP, and alcohol. Ecstasy was the illegal drug of choice for most participants, and methamphetamine (P) was an unpopular alternative. The unpopularity of methamphetamine (P) as an alternative to BZP is in direct opposition to suggestions of a 'swing back to P' by representatives of the party pill industry (Barnett, 2007; Bowden, 2005, 2007b; Drought, 2007; Nippert, 2007; New Zealand Press Association, 2007; Thompson, 2006). Those who had an existing history of illicit substance use were more likely to resort to illegal alternatives than those without a history of illegal drug use. There appeared to be sufficient demand for illegal BZP party pills to justify the existence of a black market after the ban. Based on the findings from studies 3(A), the most likely outcome of a BZP ban would be an increase in the frequency of illicit drug use for those who already use illicit drugs, rather than an increase in the prevalence of illicit drug use across the population. The increase in frequency of use is likely to be a temporary rebound effect, the size and duration of which is yet to be seen.

Study 3(B) qualitatively analyzed how BZP party pill users assessed the costs and benefits of BZP party pill use. In study 2(B) there was no significant relationship between perception of risk and rates of use for BZP party pill users. It has been suggested that illicit drug users assess both the costs and benefits of

drug use when deciding whether to use a substance or not (Duff, 2003; Hunt et al., 2007; Shewan et al., 2000). Benzylpiperazine party pill users considered the costs and benefits in similar ways to illicit substance users in previous studies. They emphasized the benefits of use while acknowledging the risks. This helps to explain the lack of direct relationship between risk and behaviour in study 2(B). I suggested in the discussion section of study 2(B) that harm reduction strategies might allow substance users to manage the risks of use without altering use patterns, weakening a direct risk by behaviour relationship. Benzylpiperazine party pill users were aware of harm reduction strategies for BZP party pill use, though they were not reliably employed to prevent harm. This could be explained by the apparent relationship between risk perception and legal status evident in study 2(B). The fact that BZP party pills were legal might have offered false assurances of safety, so harm reduction strategies were not given as much importance as they might for illegal drugs.

When all three studies are considered together they tell a story of BZP party pill use that looks similar to that of illegal recreational drug use in terms of marketing, usage, and function. Benzylpiperazine party pills are marketed in a way that associates them with illicit substances, and BZP party pill users tend to be recreational poly-drug users who assess the risks and benefits of use in similar ways to illicit drug users. After BZP party pills are banned, users will likely continue to be recreational poly-drug users, while those without illicit substance use histories might look for legal alternatives.

The findings from studies 1 and 2(A&B) potentially support a ban of BZP party pills on the basis that they do not reduce substance related harm by reducing illicit substance use. However the likelihood of an increase in frequency of illicit substance use for some users, and the potential for a black market evident in studies 3(A&B) mean that there would likely be negative consequences of banning BZP party pills. When a ban was imposed, protective measures needed to be taken to manage these potential outcomes. Legislators would needed to take responsibility for minimizing potential increases in harm as a result of a ban. In my report to the National Drug Policy at the Ministry of Health (Bryson & Wilson, 2007) I recommended that manufacture of BZP products be banned some time prior to the sale of BZP, with the aim of reducing stocks for supply to a black market. This recommendation was not taken up, however an amnesty for possession for personal use was put in place for six months after the sale of BZP was prohibited. I also recommended that enforcement agencies anticipate an increased demand for illicit drugs, especially ecstasy, and that support be made available to the BZP party pill users who might have come to depend on BZP party pill use, or who feel their illicit substance use has become problematic in the absence of BZP. I suggested that BZP party pill users be made aware of these support agencies through advertising campaigns targeted at them specifically. At the time of writing, no such campaign was in place.

Based on the findings of this research, I predicted that ecstasy rather than methamphetamine (P) would be the most likely alternative to BZP party pills, and

that rates of ecstasy use might increase as BZP party pills are banned. Recently it was reported in the media that a United Nations World Drug Report found that ecstasy and cocaine use were “gain[ing] ground” on methamphetamine use in New Zealand (Chalmers, 2008, July 26). This trend is not related to the BZP party pill ban, however it corroborates participant attitudes towards these drugs in study three.

This thesis has focused on the impact of banning BZP party pills, and their ability to reduce illicit substance related harm. However, there were other options available to the government apart from an outright ban of BZP. The substance's class D classification gave the Minister the power to heavily regulate BZP, including restricting dosages, enforcing labeling standards, limiting points of sale, and tougher advertising standards. Instead he opted for minimal and poorly enforced regulation around age restrictions, promotional product give-aways, and advertising. There has been criticism that the government banned BZP before trialing a heavily regulated BZP market, and it has been implied that the Minister deliberately left the industry to its own devices to somehow set it up for prohibition (Williamson, 2008). Regardless of the Minister's motivations for choosing not to regulate the BZP party pill industry, it is interesting to consider what the findings from the current research might tell us about the effectiveness of a more regulated BZP party pill market. It is likely that advertising standards for BZP party pills would be such that the pamphlets and websites in study one would be outlawed, as advertising restrictions similar to those for tobacco might have been enforced. The primary concern would be whether tighter regulation

would have changed patterns of use behaviour observed in study two. Let's assume that a tightly regulated BZP market means that the R18 age limit is enforced, dosages are restricted and only single doses can be purchased at one time, labeling standards require explicit directions for use including additional harm reduction information, and only licensed specialty stores are able to sell BZP products. None of these restrictions are able to prevent users from co-ingesting BZP party pills and other substances. Better labeling practices might highlight the risks more effectively, however we know from study three that awareness of harm reduction strategies for BZP party pills does not necessarily mean they are employed. In addition, tighter regulation of BZP is unlikely to have had any impact on users recreational poly-drug use. The fact remains that no matter how tightly regulated, BZP party pills are supplementary to, rather than an alternative to, illicit substance use. Regulation of BZP would have done nothing to enhance its harm reduction properties, though it may have reduced harm from BZP party pill use directly, a ban also achieves this outcome. Furthermore, the attention given to the debate over BZP's legal status indicated that the existence of a legal stimulant drug market in New Zealand was primarily an issue of social acceptability. However, removing BZP party pills from the legal market is unlikely to remedy the issue of the social acceptability of 'pill popping' as a social lubricant. The perceived normalisation of pill use is likely to continue despite a ban of BZP party pills, as new pills with new ingredients will emerge to take the place of BZP. Stricter regulation of BZP party pills could have provided an opportunity for education around the risks of BZP and other recreational drug

use. Regulation rather than an outright ban would also have avoided many of the negative outcomes associated with a ban of BZP party pills. Tougher regulation would have provided greater control over the quality and strength of ingredients of party pills, where a ban exposes BZP party pill users to the risk of consuming adulterated pills. Though not common, study three provided evidence that a small number of people were using BZP as a method of 'gatewaying out' of other illicit substance or alcohol use. For these people a ban meant the inevitable return to use of substances, which they felt, were doing them harm. A regulated BZP party pill market would also have avoided potential increases in illicit drug and alcohol use for recreational poly-drug users, as well as a black market for BZP.

There were other debates around the appropriateness of a BZP party pill ban. Some participants in study three compared the risks of BZP use to those of alcohol, suggesting that alcohol be subject to the same scrutiny as BZP. This issue was also debated in parliament when the Misuse of Drugs (Classification of BZP) Amendment Bill was read (Hansard, 2008). The argument that alcohol use is equally (or more) dangerous than BZP is a valid one. However, the addition of a psycho-stimulant to the equation increased the risk of harm to young people, who apparently chose to use these substances in combination. The fact that society has an unbalanced perception of the risks of alcohol compared to other substances was evident in study two, when alcohol was rated as less risky than all other illicit substances. It is an unfortunate fact that the risks of alcohol are underestimated in relation to other substances. Tighter regulation of BZP party

pills would have provided some consistency of regulation between alcohol and BZP. Ban supporters however would argue that a ban of BZP provided consistency across BZP and other psycho-stimulant drugs like amphetamines.

The prohibition debate has heated up over recent years. Supporters of prohibition argue that decriminalisation or legalisation of drugs sends a message condoning or even encouraging drug use (Smith, 2002). They contend that prohibition reduces drug related harm by reducing availability, increasing the price, and deterring people from drug use (Smith, 2002). Smith (2002) examined prohibition from a philosophical point of view and concluded that it “causes or increases the harms associated with drug use, so is the wrong policy” (p 243, Smith, 2002). Smith (2002) argued that prohibiting a substance fails to suppress drug use and brings the law into disrepute, hands control of drug supply over to criminal organisations exposing users to adulterants, unknown drug strengths, and violence. Prohibition has been largely ineffective in preventing the proliferation of drug use (Haden, 2008; Marlatt, 1996; United Nations, 2003, 2008), and banning a substance might go against the principles of harm reduction if the legal consequences outweigh the harms associated with use of a substance. This has been especially highlighted in the debate around the legal status of cannabis (Levine, 2003). Levine (2003) describes how the prevalence of cannabis use is forcing a re-think of prohibitive laws in some countries. He explains that it is the nature of democracy for ineffective laws to be challenged, and in the case of cannabis, there is increasing awareness that the legal consequences of cannabis use often out-weigh the harms associated with use of

the substance. In New Zealand an ever increasing number of organisations lobby for the decriminalisation of cannabis, citing the prevalence of the drug as evidence that prohibition is failing. If a ban of BZP party pills proves as ineffective as the laws around cannabis, BZP prohibition could be the subject of similar public debates and government lobbying as cannabis.

Substances are often prohibited by governments in order for them to gain control over the substance via increasing powers to police and customs officers (Levine, 2003; Smith, 2002). However, prohibition often results in the opposite, where criminals control the availability, strength, price, and purity of illegal substances (Levine, 2003; Smith, 2002). Banning BZP is likely to result in this unintended outcome, as was evidenced in study 3A where a participant was offered bulk amounts of BZP party pills while they were still legal, in anticipation of selling them after the ban for considerable profit. This would not have been a viable proposition had the government opted for a regulated legal BZP marketplace. Instead it has chosen an uncontrollable black market run by criminals who sell other more harmful substances alongside BZP.

Benzylpiperazine had to be controlled within the existing framework for managing drugs in New Zealand, and the effectiveness of the current system was at the periphery of the debate around BZP, and not central to this thesis. The so-called 'class D' category would have provided the New Zealand government with an opportunity to control the use of BZP without resorting to prohibition. Though in the end it was argued that substances should be controlled consistently, and there was little disagreement over BZP's similarity to

amphetamine type stimulants (Baumann et al., 2005; Brennan, et al., 2006; Campbell et al., 1973), which are controlled class A and B substances in New Zealand. The diluted potency of BZP is recognized in its class C status under the Misuse of Drugs Act (1975). The penalties for possession and supply of BZP will be the same as those for cannabis.

Practical issues

Several ethical issues are relevant to this research, due to the potential for participants to disclose illegal behaviour. Ethical approval for studies two and three was granted by Victoria University's School of Psychology Human Ethics Committee (SoPHEC). As both studies two and three asked participants to disclose illegal behaviour, anonymity was an important factor. Study two did not require any direct researcher to participant contact, so participant anonymity was easier to protect in this study. However, there were particularly important ethical issues around anonymity in study three, as this study required direct contact with a researcher. Every care was taken to protect participant's anonymity throughout the recruitment and interview process. In order to recruit participants and conduct telephone interviews in study three, participants had to disclose contact information. This information was only ever matched to an appointment time, and never to an individual. Contact information was destroyed immediately after completion of each individual's interview. Participants were advised not to disclose their full names, and to use an alias if they preferred. Addresses supplied for the purpose of posting vouchers were only ever recorded on the postage envelope so that this information was never retained by the researcher.

Several participants in study three disclosed that they were concerned about their substance use at the end of the interview. These participants were provided with contact details for alcohol and other drug services in their area.

Reflexivity is important in any research, and the role of the researcher in the presentation of the 'findings' must be acknowledged (Willig, 2001). In the current thesis the qualitative interviews in studies 3A and 3B were constructed, carried out and analysed after the quantitative studies 2A and 2B were completed. This meant that I carried out the qualitative studies with the knowledge that, according to my research so far, BZP party pills did not reduce the risk of substance related harm for recreational drug users. It is possible that this knowledge influenced my personal opinions around BZP party pills, and that these opinions could have affected the way the qualitative studies were conducted. However, the qualitative studies were conducted with an awareness of this potential researcher bias, and care was taken to construct unbiased interview questions and to conduct the studies in as neutral a way as possible. It appears that an acceptable degree of neutrality was achieved, as BZP party pill users freely disclosed both positive and negative thoughts and feelings about BZP party pills.

A mixed methods approach was taken for the studies in this thesis with the aim of providing as detailed a picture of BZP party pill use as possible. While the quantitative studies 2A and 2B generated valuable data and the results provided important information about the harm reduction properties (or lack of) for BZP party pills, it was felt that qualitative thematic analysis would allow

investigation of participants explanations for their thoughts and behaviours around BZP party pill use. Study 2B quantitatively examined risk perception around drug use, and study 3B provided a rich qualitative description of how BZP party pill users construct the risks and benefits of BZP and other drug use. Questions left unanswered in studies 2A and 2B (such as, *why* recreational drug users use BZP party pills) could be examined and explained qualitatively in studies 3A and 3B. The use of mixed methods in this thesis affords the reader a deeper understanding of BZP party pill use in New Zealand at this time.

There were several limitations to the current research. The sample in study two consisted of first year psychology students, and compared to the general population, this sample is young and Pakeha. The ages represented in this sample were representative of the BZP party pill using population however (Wilkins, Girling, Sweetsur, Huckle, & Huakau, 2006), though Maori and other non-Pakeha ethnic groups were underrepresented. Males were also underrepresented in the sample. As previous research has reported that BZP party pill use is more prevalent among males and Maori (Wilkins, Girling, Sweetsur, Huckle, & Huakau, 2006), it might be expected that the rates of use in this sample could be conservative compared to a general population sample of a similar age group. At the same time, rates of use in the current sample are comparable to those reported in other large scale general population studies (Wilkins et al. 2006).

There were demographic differences between the subgroups in study two. However, based on previous studies (Wilkins, Girling, Sweetsur, Huckle, &

Huakau, 2006) some of these differences would be expected. Specifically, Wilkins et al. (2006) found that BZP party pill use was most common in the 18-24 year age group, and that males were more likely to use BZP than females. The differences between BZP users and non-users in study two were consistent with Wilkins et al.'s (2006) findings, though the sex difference in the current sample was only evident for users of both illicit substances and BZP party pills (group three). Unfortunately, like many university samples, ethnic minorities were under-represented in this sample, meaning it was not possible to reliably calculate differences in use patterns between ethnic groups.

In study two participants were asked to rate "How safe it is to use each [substance]?" on a five point scale, one being safe, five being dangerous (see appendix C). It is impossible to know from this simple quantitative scale what considerations were taken into account when participants made this judgment. However significant differences between risk perceptions for different substances, and the two-factor solution around risk and legal status, indicates that this question did elicit a meaningful evaluation of risk from the sample. Further, the qualitative analysis of risk and benefits of BZP use in study three aimed to describe risk perception in more detail, and this was achieved.

Study two relied on retrospective recall of substance use. There is no way to ensure the reliability of responses to the survey, however this is a problem encountered by all research that relies on peoples memory for past events. In an effort to limit this issue, participants were asked about their substance use over the previous six months rather than 12 months, and the survey explained that

there were 182 days, or 26 weekends in a six month period. It was hoped that this might assist participants to make accurate estimates of their frequency of substance use.

Participants in study three were a self-selecting group of BZP party pill users. It is possible that this created a bias in the sample, however this is a problem for any study that relies on recruitment from the general population. The sample represented a broad range of BZP party pill users ranging in age from 18 – 49, from three major cities in New Zealand, with diverse patterns of BZP party pill use. Data saturation was reached after 45 interviews, and a further 15 interviews were completed to ensure as broad a sample as possible.

One of the major strengths of this research was the use of mixed methods and data sources. The aim was to gather a diverse range of data in an effort to describe the New Zealand BZP party pill situation in as much detail as possible. Another strength of the research was the breadth of participants in both the quantitative and qualitative studies. A large sample size in study two allowed for reliable statistical analysis, while the number and diversity of participants in study three ensured a rich qualitative description of BZP party pill use across multiple cities in New Zealand.

Future research should continue to monitor rates of use for BZP and other illicit alternatives to assess the impact of banning a widely used, legal substance. Such research should establish what impact prohibition has on availability, price, and levels of harm associated with BZP party pills. Future research should also measure risk perception around BZP use to assess what impact legal status has

on perceptions of risk. This research could determine whether users underestimate the risks for legal substances, and whether legal status offers users with a false assurance of safety.

This thesis described research that responded to a current drug issue in New Zealand. It attempted to answer relevant questions about BZP party pill use, and to inform policy so that the risk of harm from BZP could be minimized, in the most effective way possible. The report to the National Drug Policy at the Ministry of Health (Bryson & Wilson, 2007) described parts of this research. It was quoted during the parliamentary debate at the final reading of the Misuse of Drugs (Classification of BZP) Amendment Bill (Hansard, 2008), reflecting the relevance of this research. Based on the evidence available, the Amendment Bill was passed, and BZP was banned from sale (ironically) on April 1, 2008. A six-month amnesty for possession expired on September 1, 2008. It is hoped that this outcome will ultimately reduce the risk of substance related harm for young New Zealanders.

Postscript

Since the sale of BZP has been banned party pill retailers have sold BZP-free party pills. These so called 'new generation' party pills have been reported to cause serious reactions in some people, resulting in an influx of party pill related emergency room presentations (Chalmers & Nichols, 2008, May 10-11). At the time of writing, Environmental Science and Research (ESR) have been unable to identify the ingredients in the new party pills. It appears that until legislation is passed that put the onus of proof of safety on the manufacturers of

party pills, there will always be another substance to take the place of the previous one. It appears that now that a demand for legal stimulant substances has been established, there will be suppliers with a product to meet that demand. The continuing availability of legal party pills might have limited the negative effects of the BZP ban, however the level of harm caused by the unknown ingredients in these products is yet to be established. It appears that the party pill issue in New Zealand is not going away any time soon.

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APPENDIX A: BZP party pill products included in marketing material analysis

(Study one)

Manufactured/distributed by London Underground:

Bolts
Move
Groove
Jax
Devils
Fast & Furious
Smiley's
XXX

Manufactured/distributed by A-Class:

Charge
Bent
Red hearts
Ice diamonds
D-lite

Manufactured/distributed by Cosmic Corner:

Jet
Bliss
The Grunter
E formula
Pure XS
Pure XTC

Manufactured/distributed by LightYears:

Frenzy
Exodus

Other or unspecified manufacturers/distributors:

MPH
Humma
Extreme Bean
SunRise 99.8% pure BZP powder
Dark Angel
Silver Bullet
Turbo Extreme
Torque
Weightless
EFX
Fast Lane
Jump
E party pills
The Big Grin
X-Extreme energy pills
Red devils
Blue FX
Kandi
Voyager
Yum yums
Kongs
Pulse

Appendix B: Survey information sheet

(Study two)



Attitudes towards recreational substance use

This survey involves completing questions about your experience of, and attitudes toward, a range of substances that people use recreationally (some legally, and some not).

Specifically, we'd like to know how frequently each of these substances is used by 100-level psychology students, because university students tend to fit the age group in which many of these substances tend to be used. This is an important question, because some of these substances are relatively new, some have been around for a long time, and some are currently the subject of enquiry to determine whether their use should be legal or illegal. We're also interested in your attitudes to these same substances, and some basic background questions (age, sex, ethnicity). These allow us to investigate some of the psychological and demographic factors that might predict use of these substances.

Obviously, use of some of these substances is currently illegal. This research is designed to be entirely anonymous – you cannot be identified from the information you provide here, so please avoid adding anything that identifies you. At the same time, we will be surveying 100-level psychology student volunteers throughout the year on a variety of related topics, and it is useful for us to be able to add your responses together. To do this we ask you to provide three pieces of information (the last four numbers of your phone number, the last two letters of your mother's maiden name, and the numerical day you were born on), which will allow us to do this, but which cannot be used to identify you. Providing this (or any other information) does not mean that you are required to participate in related studies if you do not wish to.

This research is entirely voluntary, and you do not have to participate. If there are any specific questions that you do not wish to answer, then please leave them blank. You can withdraw from the study at any point until you hand in your survey. The anonymous responses that you provide will be added to those of other participants, and the group data analyzed and written up for presentation in academic journals and conferences, and as part of Kate Bryson's PhD thesis. The anonymous data will be stored for at least five years after publication by the researchers in Dr. Wilson's lab and office, and the electronic data will be made available to other competent researchers upon request.

Before you participate, please ask any questions that you may have. You will be provided with a contact sheet at the end of this session that provides information on how to obtain a summary of the results from Blackboard.

Thanks!

Dr. Marc Wilson	-	Supervisor	(ph : 463-5225 Email : marc.wilson@vuw.ac.nz)
Kate Bryson	-	PhD Student	(Email : kate.bryson@vuw.ac.nz)

Appendix C: Quantitative survey

(Study two)

Please complete the questions across the top for each drug listed down the side of the table. Where the question asks for a numerical response, please give your best estimate if you do not know the exact number.

†When answering the third question across, it may help you to know that there are 182 days or 26 weekends in a six month period.

	How safe is it to use each of these?					Have you ever used...?		Number of times used in the last 6 months? †	Tick drugs you haven't used but would like to try	Tick drugs you would NEVER use again or try	How many people do you know who have used...?
	Safe	Dangerous				Yes	No		Try	Never use	
	↓	1	2	3	4	5	↓	↓	↓	↓	
Tobacco	1	2	3	4	5	<input type="checkbox"/>	<input type="checkbox"/>	(days)	<input type="checkbox"/>	<input type="checkbox"/>	
LSD	1	2	3	4	5	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
Alcohol	1	2	3	4	5	<input type="checkbox"/>	<input type="checkbox"/>	(days)	<input type="checkbox"/>	<input type="checkbox"/>	
Cocaine	1	2	3	4	5	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
Ecstasy	1	2	3	4	5	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
Speed	1	2	3	4	5	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
Ketamine	1	2	3	4	5	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
Cannabis	1	2	3	4	5	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
'P'	1	2	3	4	5	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
Herbal highs/Party pills	1	2	3	4	5	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
Nitrous Oxide	1	2	3	4	5	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
GHB	1	2	3	4	5	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
Heroin	1	2	3	4	5	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
Caffeine	1	2	3	4	5	<input type="checkbox"/>	<input type="checkbox"/>	(days)	<input type="checkbox"/>	<input type="checkbox"/>	
Solvents, paints, aerosols	1	2	3	4	5	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
Ritalin	1	2	3	4	5	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	

If you know, please state what the most common active ingredients in Herbal Highs / Party Pills are:

Background Information

We would like you to give us some background information about yourself. Please don't include any additional notes or information that could be used to identify you!

Are you? (tick ☒ one) ☐ Female ☐ Male What is your age? _____ (tick ☐ if >40 years)

Which group best describes your ethnic origins (tick ☒ one)? ☐ NZ Pakeha/European ☐ NZ Maori ☐ Other: _____

In order to match your responses in this survey to future surveys, please fill in the following (This cannot be used to identify you):

Last 4 digits of your phone number: _____

Last TWO letters of mother's maiden name: _____

The numerical day you were born on (e.g., 14 for 14th): _____

Thanks for your participation

Appendix D: Transcription conventions

IE Interviewee

K Researcher (Kate)

(.) A short pause (less than 0.5 s approximately)

(..) a longer pause between 0.5 and 1–2 s

Underline marks speaker emphasis

(Parentheses) enclose transcriber's best guess at what person is saying

() empty parentheses for talk that is completely unclear

[Square parentheses] indicate a speaker talking at the same time as another

Appendix E: Semi-structured interview schedule with consent statement

(Study three)

Recreational Drug Use and Legal Party Pills Project Semi-structured interview schedule

Verbal consent statement to be read aloud and recorded by each participant:

This research is entirely voluntary, and you do not have to participate. If there are any specific questions that you do not wish to answer, then please just say you would rather not answer that question. You can withdraw from the study at any point until the interview is finished. **Do you understand this?**

After the interview, we will transcribe it and destroy the audiotape. The anonymous transcripts that you provide will be added to those of other participants, analyzed, and written up as part of a report to the Ministry of Health, for presentation in academic journals and conferences, and as part of Kate Bryson's PhD thesis. **Do you understand this?**

Participation in this study is confidential, but you may wish to use an alias, or made up name for the purpose of this interview. During the interview avoid discussing specific people, places, times, or events that could identify you or anyone you know. **Do you understand this?**

The interview will be recorded, then transcribed by the researcher and the recording wiped. If you are happy with this and wish to continue with the interview, please repeat this statement after me:

"I understand the information given to me about this study, and I give consent for the recording of this interview to be used in Victoria University's research on legal party pills."

Demographic information

What is your gender?

How old are you?

What is your ethnicity?

Interview

How often do you use legal party pills?

How long have you been using party pills?

Why did you decide start using party pills?

If you know, what are the primary active ingredients in the party pills you use?

↓

Confirm: Clarify whether they use BZP only or BZP/TFMPP combined pills.

What are the names of the pills you have used?

Do you have a preference for a brand or type of party pill?

↓

Explain what you like about that brand or type of party pill.

Is there any brand or type of party pill you particularly dislike?

↓

Explain what you dislike about that brand or type of party pill.

Where do you usually get your party pills from?

↓

Clarify: What sort of places do you purchase or obtain your party pills
Suggestions: Local Dairy, Specialty party pill stores, the Internet, given to you by friends.

How much would you typically spend on party pills for one occasion?

On what kind of occasions do you use party pills?

↓

What sorts of places do you use party pills?

Who do you usually use party pills with?

What proportion of your friends use party pills?

How many party pills do you usually take on an occasion?

↓

What is the dosage per pill?/How many milligrams of BZP/TFMPP per pill?
Taken all at once or split up over the occasion?

What's the most pills you've taken on a single occasion?

↓

Dosage?
All at once or split up over the occasion?

How do you usually take your party pills?

↓

Explain: How do you consume them? Eg, Swallow them,

Do you read the instructions and advice on the labels each time you use party pills?

↓

When do you read the labels?

Do you follow the instructions and advice on the labels?

↓

If not: What do you do differently from the instructions or advice on the labels?

Have you ever used BZP powder?

↓

How did you consume it?

How much did you use?

What differences did you notice between using the powder and the pills?

Do you drink alcohol when using party pills?

↓

How is the amount of alcohol you drink affected by the party pills?

Are there any risks involved in using party pills? What are they?

Have you ever had a bad experience using party pills?

Some people talk about a comedown associated with party pills. What are your experiences of coming down off party pills?

Are there any advantages to using party pills? What are they?

What have you heard or seen in the media about party pills?

↓

What do you think about the media attention to party pills?

Do you ever use other drugs when using party pills?

Have you ever used illegal drugs?

USED ILLEGAL DRUGS (other than cannabis)	NOT USED ILLEGAL DRUGS (excluding cannabis)
<p>What illegal drugs have you used?</p> <p style="text-align: center;">↓</p> <p>Which do you currently use?</p> <p>Which have you used in the past but no longer use?</p> <p>How frequently would you use illegal drugs?</p> <p>Do you ever use party pills instead of illegal drugs?</p> <p style="text-align: center;">↓</p> <p>When would you use party pills instead of illegal drugs?</p> <p>Which illegal drugs are party pills a good substitute for?</p> <p>How do the effects of party pills compare to the effects of illegal drugs?</p> <p style="text-align: center;">↓</p> <p>The high and the hangover/comedown.</p> <p>How has your illegal drug use changed since starting to use party pills?</p> <p style="text-align: center;">↓</p> <p>More, less or the same level of illegal drug use?</p> <p>Including party pills, has your overall level of drug use changed since using party pills?</p> <p>Are you aware what the currents laws are around party pills?</p> <p style="text-align: center;">↓</p> <p>Do you know what class of substance BZP is?</p> <p>What restrictions are placed on the sale of BZP?</p> <p>Do you think legislation around party pills will change?</p> <p style="text-align: center;">↓</p>	<p>Why have you chosen to use party pills, but not illegal drugs?</p> <p>Do you feel that illegal drugs are more of an option for you now than they were before you tried party pills?</p> <p style="text-align: center;">↓</p> <p>So do you think you are more likely to try illegal drugs because you have used party pills?</p> <p>Are you aware what the currents laws are around party pills?</p> <p style="text-align: center;">↓</p> <p>Do you know what class of substance BZP is?</p> <p>What restrictions are placed on the sale of BZP?</p> <p>Do you think legislation around party pills will change?</p> <p style="text-align: center;">↓</p> <p>What do you think the government will do about the laws around party pills?</p> <p>If party pills were banned completely, would you use anything else instead, legal or illegal?</p> <p style="text-align: center;">↓</p> <p>What would you use instead?</p> <p>Would you consider using methamphetamine instead of party pills if they were banned?</p> <p style="text-align: center;">↓</p> <p>Why/Why not?</p> <p>If party pills were banned completely would you attempt to source them illegally?</p> <p style="text-align: center;">↓</p>

<p>What do you think the government will do about the laws around party pills?</p> <p>If party pills were banned completely, would you use anything else instead, legal or illegal?</p> <p style="text-align: center;">↓</p> <p>What would you use instead?</p> <p>Would you try a drug you have never used before as a substitute for party pills?</p> <p style="text-align: center;">↓</p> <p>What would you try?</p> <p>Would you consider using methamphetamine instead of party pills if they were banned?</p> <p style="text-align: center;">↓</p> <p>Why/Why not?</p> <p>If party pills were banned completely would you attempt to source them illegally?</p> <p style="text-align: center;">↓</p> <p>How much would you pay for illegal BZP/TFMPP?</p> <p>What do you think most other party pill users will use instead if party pills are banned?</p> <p>How do you think banning party pills would affect your drinking habits?</p> <p>What effect would banning party pills have on your social life?</p> <p>What do <i>you</i> think the government needs to do about the laws around party pills?</p> <p style="text-align: center;">↓</p> <p>Where they are sold, dosages available, legal age to purchase, powdered form vs pill form, etc...</p>	<p>How much would you pay for illegal BZP/TFMPP?</p> <p>How do you think banning party pills would affect your drinking habits?</p> <p>What effect would banning party pills have on your social life?</p> <p>What do you think most other party pill users will use instead if party pills are banned?</p> <p>What do <i>you</i> think the government needs to do about the laws around party pills?</p> <p style="text-align: center;">↓</p> <p>Where they are sold, dosages available, legal age to purchase, powdered form vs pill form, etc...</p>
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That's all the questions I have for you today, but is there anything you wish to add that we haven't discussed?

Thank you for your participation.