



**LEGAL PARTY PILLS AND THEIR USE BY
YOUNG PEOPLE IN NEW ZEALAND:
A QUALITATIVE STUDY**

FINAL REPORT OF FINDINGS

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GLOSSARY

Individual interview: research interview consisting of one participant only.

‘Friendship’ pair: a research interview involving two participants, who were known to each other and elected to take part in the study together.

‘Friendship’ group: a group discussion involving three or more participants, who were known to each other and elected to take part in the study together.

Young people / youth: whilst the authors recognise that in different contexts these terms can refer to specific age bands, the terms are used interchangeably in this report.

Snowballing: a method of recruitment where participants identify people they know who may be interested in taking part in the study. This approach has shown to be effective in reaching ‘hidden’ populations, such as drug users (Faugier & Sargeant, 1997).

EXECUTIVE SUMMARY OF RESULTS

- The use of legal party pills (LPPs), also known as ‘social tonics’, ‘herbal highs’ and legal party drugs, has become a popular activity in New Zealand, in particular amongst young people (Wilkins, Girling, Sweetsur, Huckle, & Huakau, 2006). It is estimated that 50,000 four pill packs are sold every month and that the industry has sales of \$24 million dollars per year (Perrott, 2005). These substances contain chemicals such as benzylpiperazine (BZP) and m-trifluoromethylphenylpiperazine (TFMPP). BZP has been shown to have amphetamine-like activity (Campbell, Cline, Evans, Lloyd, & Peck, 1973) and BZP and TFMPP have been identified as having MDMA-like effects in rats (Baumann et al., 2005). Findings from a household survey (Wilkins, Girling, Sweetsur, Huckle, & Huakau, 2006) found that 1 in 5 New Zealanders had ever tried LPPs, with 18-24 year olds the most likely to have used these substances in the preceding year.
- In New Zealand, BZP is currently classified a Restricted Substance under the Misuse of Drugs Amendment Act 2005, which means that products containing it cannot be sold or supplied to those aged under 18 years. Advertising is also restricted, and free samples have been banned.
- Aligned with the six principles of the Youth Development Strategy Aotearoa (YDSA) (Ministry of Youth Affairs, 2002), the aim of this qualitative study was to explore young people’s use of, and experiences with LPPs. This included patterns, function and context of use, positive and negative effects, knowledge of safe use, and aspects of marketing and supply. This study was designed as a preliminary, hypothesis-generating, investigation.
- The research was qualitative in nature; there were two key parts to the study. Part I involved interviews and group discussions¹ with young people (inclusion criteria: 16-24 years) who had used LPPs in the preceding 12 months. Part II involved ‘Key Informant’ (KI) interviews with individuals who were employed in youth/substance use-related roles.
- Ten individual interviews, 11 ‘friendship’ pairs and seven ‘friendship’ groups (range 3-5 respondents) were conducted, involving 58 young people in total (n = 28 female and n = 30 male). The average age of the young people was 19.8 years and participants were mainly New Zealand European. Interviews were conducted in Auckland (n=43), Christchurch (n=9) and Nelson (n=6).
- The researchers and advisors to the study considered that the young people in the study were ‘high functioning’² in that most were studying or employed, and they were articulate, punctual and reliable with respect to participation in the study.

¹ Young people who took part in the research also completed a pre-group/interview questionnaire which collected background information on their LPP use.

² Please note that an objective measure of the ‘level of functioning’ of research participants was not undertaken.

- All but one of the young people reported having had consumed alcohol during the last six months, 22 reported not having smoked cigarettes and 12 reported not using illegal drugs during this period. Of those who had used illegal drugs, the main substances used were cannabis and ecstasy.
- Twenty-one key informant interviews were carried out with representatives from alcohol and other drug (AOD) services, health services, education, youth organisations, health promotion, the LPP industry, and national drug organisations.
- LPPs were purchased from a range of locations, including dairies, liquor outlets, ‘adult’ stores, specialist LPP outlets, and friends and acquaintances with industry connections. Some young people were using age-related false identification (ID) to access party pills, and those under 18 years reported differing experiences with regard to being asked for identification when purchasing LPPs. Requests for aged-related ID were more common in outlets involved in alcohol retail, and in some ‘reputable’ specialist stores, when compared to others outlets such as dairies (general stores).
- LPPs were often purchased as a group activity with friends, with the cost of the pills shared amongst peers. Young people also accessed LPPs for free from friends, and sharing pills in this way was likened to buying a round of alcoholic drinks, and part of the social ritual. From the pre-group/interview questionnaire, the median normal spend for an occasion of taking LPPs for those who bought them was \$30, with a range of \$10-\$70.
- Both young people and KIs noted that most LPP use was generally a social activity undertaken with friends, and occurring in the evenings/night time/weekends in a variety of places and contexts. This included bars, clubs, dance parties, and house parties. Other places included use at home or in the workplace, generally for functional use (for example, as a study aid or to alleviate boredom).
- There was an acknowledgement by KIs that the use of LPPs seemed to form part of broader, normal youth behaviour with regard to general experimentation, including trialling new substances and experiences.
- The main reason for using LPPs was for their stimulant effects, so that people could stay awake and dance and enjoy themselves for longer, and because the pills made people feel more sociable. Others were taking party pills for their mind/mood altering effects, to enhance the way they felt, or to experience specific feelings of intoxication (e.g. to feel “wasted”). Other functions of use noted less frequently were for appetite suppression and weight loss and also to aid wakefulness for completing periods of study.

- The main way of taking LPPs was swallowing the pills, although there were reports of snorting or swallowing BZP powder. Whilst no young people interviewed had used LPPs intravenously, findings from KI interviews suggest that there may be a very small number of people injecting, although this was not specifically highlighted as a young people’s issue.
- The average number of pills taken on a single occasion was estimated to be two (range 1-6 pills, based on pre-interview questionnaire data obtained on last time use of LPPs). However, it is difficult to ascertain an actual ‘dosage’ as the contents of LPPs vary between brands, and contents are often not accurately labelled on containers. Many young people were taking more than the ‘recommended³’ dose. Young people reported sometimes not waiting for the effects to emerge before taking more, whilst others titrated their dose against the effect achieved.
- LPPs were often used with other substances, particularly alcohol. Both young people and KIs noted that cannabis was sometimes used to help in the ‘comedown’ period (see later), to aid sleep and potentially stimulate the appetite. Compared to alcohol, some young people preferred the effects of LPPs, felt they maintained greater control, liked the fact that they were able to become intoxicated more quickly, and/or viewed it as a safer alternative when driving. Some also stated that they would use LPPs if ecstasy was either unavailable or unaffordable. Other respondents asserted that they used LPPs instead of illicit substances, due to their legal and more socially acceptable nature. Nobody interviewed claimed to have used LPPs to help them stop using other substances.
- Potentially risky behaviours included taking higher doses than ‘recommended’, mixing LPPs with alcohol and other substances, and driving whilst under the influence of LPPs.
- Young people had some knowledge of the contents of LPPs. Most knew that BZP was an active ingredient of the products, that levels of BZP varied across different brands and individual doses, and (to a lesser extent) that it produced stimulant-like effects in users. Whilst fewer spoke about TFMPP, they associated it with hallucinogenic or “*e-like*” effects.
- Young people’s knowledge of ‘safe’ use of LPPs was variable. Some were extremely knowledgeable, whilst others knew very little. Being with trusted friends was noted as an important way of staying safe. Other ways of maintaining safety or reducing harm were to drink water, not take too many pills and not mix with alcohol (although this was not always adhered to). Many of the safer use messages seem to have been extrapolated from what is known about ecstasy use and the dance scene. Information was obtained from friends and also ‘knowledgeable’ retailers and from LPP packaging.

³ There is no scientifically agreed or proven ‘safe’ dose.

- Some KIs held the view that many young people had poor knowledge of safe use of LPPs, the effects of using LPPs with other drugs, what they might expect experientially from using the products, and likely effects of overuse or associated risks. Some believed there was a growing and more sophisticated level of knowledge amongst young people. Whilst limited knowledge was often attributed to a lack of available information on LPP products, it was acknowledged that further pamphlets and brochures would not necessarily result in behaviour change, and that such information might be more widely accessed by professionals rather than users. There was a concern among KIs about the lack of available information.
- A mix of positive and negative (self-reported) impacts of LPP use was identified, both by young people and KIs. These ranged from more immediate effects (e.g. during the drug-taking occasion) through to longer term impacts (e.g. attendance and performance at work/school/college after the weekend).
- Perceived positive effects were, not surprisingly, closely aligned with young people's reasons for using LPPs. Thus, increased energy, stamina, confidence and sociability, weight loss, and the products' mind/mood altering effects, were the key positive associations made with LPP use. Financial savings (particularly for those who drank less alcohol when using LPPs) was also identified.
- A wide range of negative effects were identified in the research, some of which were experienced whilst intoxicated, with others linked to the 'comedown' period (i.e. after the effects of the drugs had worn off). Young people sometimes attributed negative effects to the use of alcohol as well and the presence and/or severity of negative impacts were felt to be dependent upon the type and number of pills taken, user's mood prior to taking the substances, combination of drugs taken, the level of sleep deprivation, and whether or not food was consumed beforehand.
- However, it is reasonably difficult to attribute many of the negative effects to LPPs alone – a combination of LPP consumption, alcohol consumption and possibly other substances, extended periods of exertion, lack of sleep, and dehydration can all contribute to these negative effects.
- Some young people accepted the negative side of party pill usage as being 'worth it', given the positive effects experienced whilst under the influence of the substance.
- The key negative physical health effects identified included: tiredness and sluggishness the next day, sore or dry mouth, sore jaw, headaches, vomiting and nausea, dehydration/inability to quench thirst, tachycardia, sore or shaking body and an inability to urinate. The vast majority of negative emotional or psychological effects identified occurred during the 'comedown' period, and included feeling depressed or down, tense and edgy, angry or annoyed, socially

withdrawn, or anxious or paranoid. Other negative impacts specifically identified as relating to the ‘comedown’ period included lack of sleep / inability to sleep⁴, loss of appetite, lethargy, headache, nausea, aching and tense body, impaired work or study performance (including employment absences) and dehydration. Most young people considered the ‘comedown’ period induced by LPP use to be far worse than with other substances.

- Many young people had decided to reduce their use of LPPs when the negative effects outweighed the positives, or when they had a change in life circumstances. None reported having difficulty cutting down their use of LPPs.
- None of the young people had accessed health or other support services with respect to their use of LPPs. The majority of KI responses reflected this. The exception to this was KIs from emergency departments (ED), some of whom had treated a small number of young people for nausea, tachycardia, anxiety, vomiting, headaches, stomach pains, paranoia and seizures. There was a general view that many, if not most, BZP-related ED presentations were not for BZP use alone, and that patients had also consumed alcohol and (in some cases) illegal substances. Compared with presentations related to other substance, LPP-related presentations were noted as being small in number, and with a lower impact on resources.
- There was a view amongst KIs from AOD services that young people were not presenting with problems related to their LPP use, nor was it being assessed as being the primary issue with regard to their substance use. Whilst LPPs might be part of their drug repertoire, cannabis and alcohol were considered to be the substances causing most of the problems for young AOD clients.
- There was widespread concern expressed by KIs about it being too early to see the long term effects of LPP use, including physical, psychological or societal harms.
- The advertising and marketing of LPP products was viewed by most KIs as being specifically targeted at a youth market, very visible (via posters and billboards outside retail outlets) and conveying LPPs as a legal and safe alternative to illicit drugs. Likewise, many (but not all) young people generally considered LPPs to be relatively safe, due to their legal status, widespread availability, ‘herbal’ associations (although this was often recognised as a misnomer), users’ own experiences and a perceived absence of severe consequence for users. Some young people commented that using LPPs meant that they were able to access substances in a safe way, that they avoided illegal activity and had access to a cost-effective alternative. A number commented that LPPs had worse negative effects than some illegal substances.

⁴ Most young people highlighted that a typical LPP occasion involved staying awake for an entire night.

- Most young people who participated in the research were aware of (and supported) age-related legislation for LPP products, although many were unsure of the specifics of the law (e.g. whether it was illegal for those under 18 years to consume LPP products). Beyond this, there was very limited awareness of other legislative issues. Both KIs and young people suggested banning sales from dairies and other outlets where very young people might be seeing these products.
- Regardless of their views on the 2005 legislative changes, KIs believed that effective policing of the age-related restrictions would be a challenge, that young people would still find ways access to the products, and that the legislative framework would be slow to respond to the emergence of new (non-BZP based) products. There was a view that any regulation of the industry (including quality control, dosage levels, labelling and information provision etc.) needed to be controlled independently of the LPP industry and that self-regulation was not the way forward.
- KIs suggested further legislation was required with regard to quality control on the manufacturing and packaging of LPPs, restrictions on the amount of BZP per pill, a legal maximum amount per dosage unit, and a maximum pack size. Restricting the sales, marketing and product promotion from certain outlets was also suggested.
- KIs had mixed feelings towards LPP industry claims of LPPs as a ‘harm reduction’ intervention. The idea that those who wanted to come off ‘harder’ drugs such as methamphetamine would be attracted to LPPs was not taken too seriously, particularly in light of the lack of evidence to support this.
- Some KIs were specifically asked for their views on whether LPPs might act as a ‘gateway drug’ to the use of illicit substances. Interviewees from AOD backgrounds noted that most of their clients had already used alcohol and cannabis before using LPPs, which formed part of a repertoire of drug taking. However, some did see the potential for a move to illicit drugs, either due to risk-taking behaviours while disinhibited on LPPs or, in the event that LPPs are banned, that this may lead users to seek other substances in their place. There was also concern that LPPs might have possibly created a new group of ‘drug takers’ (those who would not normally use illegal drugs), or increased the level of drug-taking events.

Limitations of the study

- There are a number of limitations to the research, some of which are inherent in the methodology, and others which are specific to this study. It is important that they are considered when interpreting the findings. These include:

- the qualitative nature of the data means that sample sizes are small, and the results cannot be generalised to the overall (youth) population;
- the recruitment strategy may have introduced a bias into the final sample; as young people were often interviewed in ‘friendship’ pairs or groups, clustering of experiences might have led to over emphasising of certain events or outcomes;
- many of the KIs did not have extensive contact with young LPP users;
- the research may have attracted only those with more ‘extreme’ views or experiences of party pills;
- young people interested in, and more knowledgeable about, substance use may have been more likely to participate;
- the sample appears to have been a ‘high functioning group’ and may not be representative of LPP users generally;
- the sample was weighted towards New Zealand European respondents, and was mainly drawn from Auckland (with no rural representation), and
- this study has looked at LPPs and the *context* in which they are currently used and has not included any detailed consideration of the impact of LPPs from a physiological or psychological perspective.

For a further discussion of these results, please see section 6.0.

1.0 INTRODUCTION

1.1 Structure of this report

This report commences with an introduction and background to legal party pills in New Zealand. This is followed by a consideration of some of the issues involved in researching young people, and the methodological matters related to this. Following on from the aims of the study, a comprehensive overview of the methodology is provided.

Results are presented in three sections. An important precursor to this: “Interpretation of Results” should be given due consideration. The first section of the Results provides an analysis of data collected through interviews and focus groups undertaken with young people. The second provides an analysis of data collected through interviews with ‘key informants’. The third section explores some of the similarities and differences between the two data sets.

A discussion of the study findings is provided at the conclusion of this report.

1.2 Background literature

New Zealand has an interesting new drug issue, in the form of ‘legal’ party pills. The use of LPPs, also known as ‘social tonics’, legal party drugs and ‘herbal highs’, has become a popular activity within New Zealand, in particular among young people (Wilkins, Girling, Sweetsur, Huckle, & Huakau, 2006). These substances, which are available as products with names such as Kandi, Groove, Bliss and Frenzy, contain chemicals such as benzylpiperazine (BZP) and m-trifluoromethylphenylpiperazine (TFMPP) – both of which form part of the piperazine group of compounds, plus other compounds such as amino acids, herbal extracts and vitamins.

BZP has an effect in humans which produces a stimulant action similar to amphetamines, although considered to be much weaker. In recent years, BZP and TFMPP have been sold as alternatives to illegal drugs such as ecstasy and amphetamines. Indeed, it has been suggested that drugs being sold as MDMA (or ecstasy) often only contain BZP (USDEA, 2006).

Until 2005, these products were available unrestricted in New Zealand, and could be purchased online, through LPP outlets, ‘diaries’, and liquor outlets. A government advisory committee concluded that they should not be banned, and a subsequent law change in 2005 made them available for sale only to those aged 18 or over, restricted advertising and banned free samples. No other restrictions on use of LPPs exist at the time of the publication of this report. In other countries such as the USA and Australia, BZP and products containing BZP are banned.

BZP has been shown to have amphetamine-like activity (Campbell, Cline, Evans, Lloyd, & Peck, 1973) and BZP and TFMPP have been shown to have MDMA-like

effects in rats (Baumann et al., 2005). In human volunteers, BZP has been shown to have amphetamine-like effects (Bye, Munro-Faure, Peck, & Young, 1973), and double blind tests in former amphetamine addicts have shown the effects of BZP to be subjectively similar to those of dexamphetamine (Campbell, Cline, Evans, Lloyd, & Peck, 1973), although with a much lower potency. An analogue (Trelibet) was briefly marketed as an antidepressant.

Recent published data indicate some concerns about presentations to hospital emergency departments (Alansari & Hamilton, 2006; Gee, Richardson, Woltersdorf, & Moore, 2006). Alansari's case study reports on nephrotoxicity in one 17-year old male patient who had consumed a small amount of alcohol and five LPPs. The nephrotoxicity resolved after three weeks. Although cause and effect was not established, the timing of the consumption of the party pills and the acute renal failure was considered by the authors to indicate causality.

Gee et al report on 61 patients presenting to the Christchurch Hospital emergency department a total of 80 times and provide data on a number of adverse events including seizures, insomnia, nausea and vomiting, palpitations, dystonia and urinary retention (Gee, Richardson, Woltersdorf, & Moore, 2006). Amongst the 15 seizures recorded, two patients suffered life threatening toxicity. Whilst there was no relationship between number of LPPs taken and a seizure occurring, the authors did not explore the relationship with other psychoactive substances, which in the total sample had been taken by at least 39 individuals, and included alcohol, cannabis, MDMA, LSD and Ritalin® (methylphenidate). The authors caution against the use of LPPs amongst those with a history of seizures and cardiovascular problems. A more recent media report from the same ED unit has noted a 50% drop in the number of LPP users attending the service (Claridge, 2006).

A survey of party pills use amongst emergency department attendees, noted that 11.9% of the 1043 ED attendees who completed the survey had ever taken LPPs. Twenty four percent (of those who had ever taken them) had taken them only once, although 18.4% reported using them regularly. The study concluded that ED physicians need to be aware that a significant proportion of ED attendees may have ingested LPPs and that they should be alert to signs of toxicity (Nicholson, 2006).

In a household survey of LPP use, Wilkins et al (2006) found that one in five New Zealanders had ever tried LPPs, and 1 in 7 had done so in the last 12 months. Problems such as sleep disturbance, poor appetite and gastrointestinal problems were frequently reported by the LPP using sample. Almost half had used them only once in the previous year, and around 6% had used them 50 plus times during that time period. Despite warnings on a number of products not to consume alcohol with LPPs, over 90% drank while taking the products. Nearly all users normally swallowed LPPs, although two reported usually snorting LPPs in powder form. Only 1.2% of "last year users" had ever injected LPPs. An overview of use patterns amongst young people

can be seen in Table 1. Eighteen-twenty four year olds were the most likely to have used LPPs, with 33.9% 18-19 year olds and 38.0% of 20-24 year olds having used legal party pills in the preceding year.

Table 1: Prevalence of use of LPPs by age group and timeframe (from Wilkins et al, 2006)

	Ever used (%)	Used in last year (%)	Used in last month (%)
13-14 years old	3.0	3.0	Not available
15-17 years old	16.3	16.3	5.8
18-19 years old	40.7	33.9	13.1
20-24 years old	48.8	38.0	10.5
Total sample: 13-64 years old	20.3	15.3	4.6

Data from Wilkins et al, 2006

Findings from Wilkins et al (2006) indicate that a focus on LPP use among young people is a legitimate one. Important areas of study pertaining to use by youth specifically include: patterns of use, social, physical and psychological harm, reasons for use, function of use and the relationship between LPP use and the development of young people.

An examination of legal party pills available in New Zealand has revealed dozens of different products, with new ones being added on a regular basis. Wilkins et al (2006) list over 40 products, with Charge and Kandi cited by 26.6% and 10.2% of respondents respectively, as the products most used in the last 12 months. In general, products contain similar amounts of BZP, although the amounts have been increasing, from around 80mg per dose to 250mg per dose. Whilst usually sold as tablets, pills or capsules, pure BZP powder is available in some places (Perrott, 2005). It is estimated that 50,000 four pill packs are sold every month and that the industry has sales of \$24 million per year (Perrott, 2005).

A wide variety of information on the effects, adverse effects and safe use of these products is available on websites and in paper publications. However, in the absence of research evidence, it would appear that much of the information provided is based on common sense (e.g. products should not be taken by pregnant women, products should not be mixed with other drugs or alcohol) or inferential (for example, advice not to take these products if suffering from mental health problems – related to their stimulant action and knowledge that other stimulants such as methamphetamine can exacerbate mental health problems).

Some retailers and suppliers have taken a responsible approach, with websites providing advice to users with regard to safety, water intake, dosage and who should not take these products, as well as advice on recovery (e.g. <http://www.mindfuel.co.nz/safety.html>). Furthermore, many products come with

advice on safe use, in addition to dosing information. However, in many cases, accurate and understandable information on the contents of each dosage unit is not available. A review of the information on products on websites (undertaken by the Principal Investigator during August 2006) found that in some cases no information was available on the ingredients. For other products, information was often confusing or misleading. For example, the website <http://www.mindfuel.co.nz/energy.html> notes for the product Magik, that each tablet contains “120mg Benzylpiperazine, 290mg Proprietary blend of Piperazines, antioxidants, amino acids and vitamins”. This information on ‘piperazine’ content is not helpful for users as it does not accurately specify actual piperazine contents. Other products have more detailed descriptions of contents; for example, the contents of Vibe are noted to be: BZP 90mg, TFMPP 45mg, Amino blend 165mg, Electrolyte mineral blend 200mg. (It is important to note that these contents have not been scientifically verified). One piece of information on the packaging of many products is a statement such as “5 x 450mg capsules”, which could be representing the actual weight of the capsule, but might be misinterpreted as the milligrams of active constituents such as BZP.

Regardless of what information is available on the label, within leaflets or on websites, research to date indicates that users may take more than the ‘recommended’ dose. Nicholson (2006) found that 32.8% of LPP users had taken more than the ‘recommended’ dose the first time they used them, and Wilkins et al (2006) reported that 41.6% of users had taken four or more pills at one time and 20.2% had taken six or more pills at one time. Users also report accessing LPPs through friends and may not even see the packaging – in Nicholson’s study 29.6% reported receiving pills from friends and even when packaging is available, 32% of respondents did not read the instructions on the container before taking the product for the first time (2006).

1.3 Rationale for researching young people’s use of party pills

National Drug Policy 1998-2003 identifies young people as one of its priority groups, recognising them as a group liable to greater risk of harm through substance use (Ministry of Health, 1998). Furthermore, the National Drug Policy 2006–2011 Consultation Document has as one of its major objectives “to prevent or delay uptake of tobacco, alcohol, illicit and other drug use, particularly in young people” (Ministry of Health, 2006).

The Ministry of Health’s Youth Health: a Guide to Action (Ministry of Health, 2003) highlights alcohol and other drugs as a specific health risk for young people. In addition, it signals a need for health research to be more responsive to young people’s unique cultural and developmental context. Three youth health action goals in particular advocate a youth development approach to research into young people’s experience of legal party pills:

- A measurable improvement in young people’s mental health
- A measurable improvement in young people’s physical health
- A higher level of knowledge about youth health and youth health services.

With a high proportion of young people reported to be using LPPs, and with the majority of the marketing aimed at young people, it is important to understand the context of use of these products from the perspective of young people. In general, young people’s drug use is shaped by the context in which drugs are used – cultural, social and economic. They are at more risk of harm if relationships with families and peers, for example, are compromised. It is also acknowledged that information about young people’s drug use is essential in developing any educational interventions (Allen and Clarke - Policy and Regulatory Specialists Limited, 2004). Thus far, there are no published data within the peer-reviewed literature regarding the impact of the use of such products by young people specifically.

In the study by Wilkins et al, we are able to ascertain the proportions of younger people using LPPs, and if any further analysis of these data are to occur, it may reveal more information on psychological, physical and social harms in this age group (Wilkins, Girling, Sweetsur, Huckle, & Huakau, 2006). However, such quantitative data are unable to provide in-depth information on how, when and why young people use LPPs, how use is influenced by their social situation, peers, families etc, and to what extent harms (such as dependence and tolerance), as understood in the context of adult drug use, pertain to younger people. Indeed, the concept of dependence and tolerance may not even be appropriate in teenagers, as tolerance is a relatively poor marker for dependence in young people (Chen & Anthony, 2003) and physical symptoms of dependence are rarely reported in this group (Harrison, Fulkerson, & Beebe, 1998). Thus we need to explore these issues from the perspective of young people, and in a youth-appropriate manner conducive to obtaining accurate information.

2.0 STUDY AIMS

The aim of this study was to conduct qualitative research into young people's use of LPPs, aligned with the six principles of the Youth Development Strategy Aotearoa (YDSA) (Ministry of Youth Affairs, 2002).

The objectives of the research were:

- To explore patterns of use of LPPs among young people aged 16-24;
- To begin to describe effects and adverse effects of LPPs as identified by young people;
- To explore the context of use among young people, the attraction of the products, and the influence of use of these products on social networks and social connectedness;
- To explore knowledge of safe use in relation to LPP use;
- To interview 'key informants' (e.g. individuals employed in youth and health services, LPP retailers etc.) to explore aspects of marketing, supply, concerns about youth use of the substances;
- To provide information to support policy making and service delivery in identifying possible harm reduction and educational interventions;
- To generate hypotheses or research questions for future research.

3.0 METHODS

3.1 Youth development approach as defined in the YDSA

In keeping with a youth development approach to this study, the researchers worked with young people, where possible, throughout the fieldwork process. This included training and working with youth ‘fieldworkers’ who were employed to recruit participants, developing relationships with youth organisations, and consulting young people on the methods used to attract participants and to collect data. A youth development approach also states the need for meaningful youth participation, and acknowledges that young people are a diverse group, with a wide range of expertise, experiences and realities. Given the opportunity that a qualitative methodology provides to explore (in depth) human beliefs and behaviours (Patton, 1990), it is ideally suited to accessing young people’s experiences and perceptions.

3.2 Sampling

Sampling for both the ‘key informants’ and young people was purposive. This approach seeks to select individuals due to their knowledge, experience or specific characteristics (Patton, 1990). The sampling process was ongoing throughout the study, as the data collection, reflection and review process informed the need for particular information from specific sources. A wide perspective on LPP use in young people was a desired outcome of this research, although it should be noted that the perspective of the research team is grounded in health, and the area of substance use, and does not reflect a legal, commercial or policy perspective.

This purposive sampling process also utilised a method known as ‘snowballing’ where participants identify people they know who may be interested in taking part in the study. This recruitment approach has shown to be effective in reaching ‘hidden’ populations, such as drug users (Faugier & Sargeant, 1997).

3.3 Focus groups and interviews with young people

3.3.1 Inclusion Criteria

All participants in this stage of the research were required to be aged 16 to 24 years, to have used LPPs at least once within the last 12 months, and to be willing to take part in the research process. Potential participants were excluded if they had close friends or family involved in the manufacture or retail of legal party pills.

3.3.2 Recruitment of participants

Recruitment techniques

A variety of techniques were used to promote the study and recruit young people to participate. Flyers (A5 and business card size) were developed to publicise the research. These contained basic information about the aims of the study, and listed contact details for registering interest in participating. Flyers and cards were distributed by the research team and trained fieldworkers in a range of locations. These included party pill retail outlets, bars and clubs, tertiary education campuses, and a range of youth and health organisations. Flyers were also handed out at appropriate events, to those who indicated an interest in the research. Advertisements were placed in suitable online and paper-based publications (e.g. entertainment/urban culture websites and student magazines). The research team worked with advisors and youth fieldworkers (see below) from the Māori, Pacific and Asian communities who provided guidance on appropriate recruitment techniques and attempted to ‘publicise’ the research through their own networks. Specific organisations and geographical areas were targeted in order to attract young people from different ethnic groups. For example, flyers were distributed in South Auckland as a means of promoting the research to Pacific young people, and University-based organisations working with Māori and Pacific students assisted with the recruitment process.

Youth Fieldworkers

Youth fieldworkers were employed to provide assistance with recruiting participants and publicising the research. They were identified via youth organisations and during the general research process, and were selected due to having good networks in youth communities. Training was provided for all field workers and covered issues such as privacy and confidentiality, appropriate flyer distribution points and general techniques in informing young people about the study (e.g. the importance of not coercing potential participants).

Making contact with the researchers

A freephone number and texting service was established for the project. This allowed young people to contact the research team directly – either to find out more about the study, or to register their interest in participating. The *freephone* number was directed to a dedicated mobile phone held by a member of the research team at all times. If they were unavailable to answer the phone, callers had the choice of leaving their first name and telephone number to enable them to be called back within 24 hours. The *texting* service involved young people texting ‘research’ to a different telephone

number⁵, but which went to the same mobile phone. When a text was received, a return message was sent out to confirm that the texter was indeed interested in finding out more about the research, and requesting them to text back their first name⁶ if they were happy to be called back. Once the texter had confirmed interest, they were telephoned and provided with an overview of the research, given the opportunity to ask any questions and, where appropriate, a screening questionnaire was undertaken to ascertain their eligibility to participate (see below).

A telephone protocol was developed for the research which outlined the procedures for responding to telephone enquiries from potential participants. This ensured consistency in the approach of research staff, and detailed key steps to ensure the safety and confidentiality of callers.

To maintain confidentiality, those who indicated they wanted to take part in a group with friends were given a unique code to distribute to their peers. When subsequently contacting the research team, the friends were required to provide the code as a means of identifying how they found out about the research, and which group they were to participate in.

It is important to note that the friend had to voluntarily contact the research team using the above process. Young people were not ‘cold-called’, and were not contacted by the researchers until they had contacted the project first and confirmed their willingness to participate. This was considered essential to ensure no coercion was exerted by the research team, and participation was entirely voluntary.

Screening questionnaire

A short screening questionnaire was completed with all potential participants over the telephone to determine whether or not they were eligible to participate. This consisted of questions on their LPP use (e.g. last occasion of use), age, ethnicity, how they found out about the research, and whether or not they wished to take part in an individual interview or (‘friendship’) pair or group.

3.3.3 Data collection

The original plan for the research was to conduct a series of general focus groups (with participants unknown to each other), segmented by age. However, during the project planning and the initial recruitment phase it soon became evident that this method of data collection may not be appropriate for the intended audience (i.e. young people aged 16-24 years) particularly in light of the topic matter (i.e. substance use).

⁵ It is not possible to text to a freephone number.

⁶ This was undertaken to ensure that the owner of the phone had sent the original text, and to minimise the chance of young people unwittingly being registered for the research.

Thus, a series of individual interviews, and ‘friendship’ pairs and groups⁷ were conducted. ‘Friendship’ pairs/groups are widely used in research involving young people and can provide opportunities to observe natural social networks, whilst also aiding recruitment and access to youth respondents (Highet, 2003). This proved to be the case with this study, with the vast majority electing to take part with friends.

Co-facilitators with a youth treatment background were present at individual interviews and ‘friendship’ pairs/groups which contained participants aged 16-18 years. Given their younger age, this was to ensure that support would be available should issues arise within the research discussions (e.g. young people disclosing concerns about their own or another person’s substance use). In order to overcome the potential impact of their presence on the research process, the co-facilitator took a background role during interviews and groups (e.g. took general notes), but was available to provide assistance if required. Leaflets on relevant services (e.g. youth drug treatment) were available upon request at the end of all interviews and groups.

All individual interviews and ‘friendship’ pairs/groups were conducted using a topic guide developed by the research team. The key questions were shaped by the need to explore users’ experiences (both positive and negative) of a new substance, about which little was known – and were developed with input from the project advisory group and piloted prior to the research commencing. Topics covered included LPP patterns of use (e.g. accessing products, place of use, frequency, dosage etc.), positive and negative effects, general perceptions of the products, knowledge of safe use and legislation, and (where appropriate) use of other substances.

Individual interviews lasted between 1 and 1½ hours, and ‘friendship’ pairs and groups lasted around 1½ hours. All but one interview/pair/group⁸ were recorded and transcribed for use in subsequent analysis. Data collection took place between June and September 2006, and was carried out in a range of locations (e.g. tertiary campus, community rooms). All respondents provided written informed consent. Participants were offered a cinema voucher as a ‘thank you’ for their contribution to the research.

Pre group/interview questionnaire

Prior to the main discussion, a pre-group/interview questionnaire was given to participants to complete, which collected additional data on LPP behaviour and substance use over the previous six months. This consisted mainly of open-ended questions and took around 10 minutes to complete. Questions included frequency of LPP use over last six months, names of products used, favourite products, usual place

⁷ ‘Friendship’ pairs and groups consisted of participants who were generally well known to one another. See glossary.

⁸ Due to confidentiality concerns, one participant requested that the interview was not audio-taped. In order that the data was still recorded, the researcher took hand-written notes during the interview.

and context of LPP use, numbers consumed at each occasion, good and bad things experienced, age of first use, access points and purchasing behaviour, knowledge of ingredients and safe use, and reasons for using. Completed questionnaires supplied useful background data for the research team, and provided young people with the opportunity to comment on issues that they may not have been comfortable discussing either with the researcher or in front of the other participants. It was also intended to act as a prompt for considering their own LPP use before the main interview/group commenced.

Research techniques

A series of research techniques were utilised in both the pair/group and individual discussions. These were designed to elicit underlying opinions, and to provide young people with the opportunity to express their views in a less direct way. Examples included grouping different substances by self-determined criteria, ranking substances on a range of scales (e.g. most harmful through to least harmful) and describing the 'typical party pill user' (providing a device for research participants to project their own attitudes and behaviour).

3.4 'Key informant' interviews

3.4.1 Inclusion Criteria

KIs were purposively sampled for their knowledge and expertise in a number of areas relating to young people's use of LPPs. In order to access a range of views and experience, a wide array of KIs was sought in the research – including those working directly with young people, and others with a broader perspective on LPP-related issues (e.g. individuals involved in AOD policy). Potential KIs were identified via research(er) networks, a review of the New Zealand LPP-related literature, internet and media searches, and informal networking.

3.4.2 Recruitment of Participants

KIs were approached and recruited directly by the lead researcher. Potential participants were contacted and provided with an explanation of the research, what their participation would involve and how the information would be used. If they agreed to take part, an interview was scheduled. In addition, a 'snowballing' technique was used, whereby those interviewed (or who declined to take part) were asked to recommend other potential participants.

3.4.3 Data Collection

Interviews were semi-structured and conducted either face-to-face or over the telephone. All interviews were carried out using a topic guide developed by the research team, which was adapted depending on the participant's professional role and area of expertise. The key questions were shaped by the current literature at the time of the research and the broad research aims, and were developed with input from the project advisory group. Topics covered included youth LPP patterns of use (e.g. accessing products, place of use, frequency, dosage etc.), positive and negative effects, general perceptions of the products (including marketing and supply), levels of knowledge of safe use amongst young people, and views of LPP legislation.

Interviews were carried out between January and December 2006 and lasted between 40-75 minutes. All were tape-recorded and subsequently transcribed verbatim. All participants provided written informed consent.

3.5 Data analysis

Data from the pre-interview/group questionnaires (young people sample only) were entered into an excel spreadsheet and descriptive statistics obtained. All recorded interviews and group discussions were transcribed. A selection of transcripts was first read through by the lead researcher and a coding frame developed, which was reviewed by a second person in order to check interpretation. All transcripts were then coded using the N-VIVO qualitative software package (with two members of the research team coding half each). The coding frame was developed and amended where appropriate during this process – and, to ensure reliability, the coded themes were then read through by both researchers and checked for consistency. Data from the two groups of participants – young people and 'key informants' – were also compared and contrasted in a process known as triangulation. Analysis of both sets of data was undertaken with additional input from two further researchers with different backgrounds (this included a young person who was not themselves a participant in the study). Furthermore, advisors from a youth research and clinical background were involved in the analysis, and a number of advisors from health, policy, youth and Māori, Pacific and Asian backgrounds provided feedback on interpretation of the results.

3.6 Ethical approval

Ethical approval for the study was granted by the University of Auckland Human Participants Ethics Committee (ref 2005/279). All participants were assured anonymity.

4.0 RESULTS

4.1 Focus groups and interviews with young people

4.1.1 Description of sample

A total of ten individual interviews, 11 ‘friendship’ pairs and seven ‘friendship’ groups (range 3-5 respondents) were conducted for this stage of the research. This involved 58 young people in total, and included 28 female and 30 male respondents. The average age of participants, based on pre group/interview questionnaire was 19.8 years (range 17-23; data missing on 5 cases).

The self-identified ethnicity of participants⁹ was as follows: 49 x New Zealand European, two Māori, one Indian, two Taiwanese, one Korean, one Chinese, one Filipino. The majority of interviews were conducted in Auckland (n=43 respondents), with the remainder undertaken in Christchurch (n=9 respondents) and Nelson (n=6 respondents).

Participants included a mix of secondary school students, university students, full-time or part-time employees, and an at-home mother.

Information was collected from respondents on their substance use over the previous six months¹⁰ via the pre-group/interview questionnaire. All but one person had drunk alcohol during that period. Twenty two reported not having smoked cigarettes and 12 reported having used no illegal drugs during this time period. Of those who reported having used illicit drugs, 34 had used cannabis, 30 had used ecstasy, 16 had used LSD (lysergic acid diethylamide), four had used nitrous oxide, and three or less young people had used ‘speed’, GHB (gammahydroxybutyrate), methamphetamine, ‘magic mushrooms’, ketamine, caffeine, and salvia divinorum.

4.1.2 General perceptions of LPPs

Research participants were asked what they called LPP products. Two key titles emerged – either “*herbals*” or “*party pills*”¹¹. One young person called them “*energy pills*” and others stated that they sometimes referred to the substances by brand names when talking about LPPs generally.

The herbal title was felt to convey a more natural (“*they’re made out of herbs*”), less harmful product. For some, this inferred a weaker, and safer, substance, and one which was unlike ‘real’ drugs. For several respondents this was considered a positive

⁹ This information was not collected from one respondent.

¹⁰ Legal party pills, alcohol and tobacco were listed. Spaces were provided for young people to write in any other substances they had used in the previous six months.

¹¹ No-one claimed to call them *legal* party pills.

quality, whilst for others (often more experienced drug users) it suggested an inferior drug-taking experience which would need to be ‘topped up’ with something else.

Whilst the findings suggest that the herbal title is widely used by young people, many of the research participants recognised that this term was a misnomer as it did not reflect the synthetic make-up of LPP products. Several were scathing of those who still referred to the products as ‘herbals’, as being uninformed and ignorant. Others stated that they sometimes referred to LPPs as “*dirty herbals*” in reference to the negative side effects of the products. There was also evidence of a ‘pecking order’ with regard to LPPs and other party drugs, with some young people commenting that legal party pills were ‘looked down on’ by those who were involved in the ‘underground’, less mainstream or commercial dance party culture.

There was some awareness of LPPs’ link with a ‘harm reduction’ role. Some young people spoke about them being a replacement substance for methamphetamine, and providing a safer alternative to illicit drugs. However, nobody interviewed claimed to have used LPPs to withdraw from other substances, and most believed that the vast majority of young people were not using them for this purpose.

4.1.3 First use of LPPs

Data from the pre-group/interview questionnaire identified that the mean age of first using LPPs was 17.4 years (youngest 14 and oldest 22).

Most young people tried party pills for the first time on the recommendation of a friend or relative. In some situations it was not a planned event, and occurred because someone else suggested it in the context of a social occasion. As such, it often took place after large amounts of alcohol had been consumed.

It was generally a memorable occasion for respondents¹². This was sometimes due to it being a negative experience, whereas for others it was remembered for being an exciting encounter with something new:

A couple of mates gave me some [name of product]. They are really weak, but because it was my first time it was fantastic. I danced my arse off all night. [Interview 19]

For those who had a less than positive experience, this was generally due to taking a large number of party pills, or taking them in combination with alcohol, and suffering a severe ‘comedown’. Many recalled that they did not know how many to take and either just guessed at an appropriate dose, or followed the (often ill-informed) advice of a friend or relative:

And the first experience was absolutely horrible. I didn’t like know how much I was taking...it just made me sick for the next three days and I couldn’t get out of bed so it was horrible. [Interview 10]

¹² One interviewee claimed to have felt “*nothing*” the first time they tried LPPs.

She took me to [name of LPP retailer] and gave me a couple of packets of [name of product]. I had no idea what I'd taken but I trusted her. Afterwards she told me we'd taken three times the recommended dosage. We'd taken three packets between the two of us in one go. I would have taken 9 in one go. Very interesting night. [Interview 8]

Whilst many of the young people interviewed had used illicit drugs previously, there was a mix of experiences in terms of whether LPPs or illegal drugs had been used first. Some had tried ecstasy or cannabis before taking LPPs. For others, their first substance used (aside from alcohol) had been legal party pills.

4.1.4 Accessing LPPs

Young people were asked about their purchasing behaviour with regard to party pills. This included how and where they accessed LPPs, how much they spent on a typical occasion, and the decision making process with regard to purchasing specific products.

Source of substances

Young people often accessed LPPs free of charge from friends. This generally occurred during a social occasion, when one person had 'run out' of party pills, or where a friend had already pre-purchased the products. When given to friends, the pills were usually handed out on an individual basis:

Like if someone says, we're at the pub and they say 'you want to take some?', yeah sweet, if it gets handed out from an open palm then I'll take it. [Interview 10]

Whilst young people stated that they did not always know what product they were taking, as the pills were generally not provided in their packaging, the friend who was supplying them would usually inform them of the brand (and sometimes strength) of the pill. The fact that they were generally sourced from a trusted friend allayed any potential concerns about this.

Sharing pills in this way was likened to buying a round of alcoholic drinks, or sharing cigarettes, and seen to be part of the social ritual. This was differentiated from other drugs such as ecstasy, which was generally not given away for free due to the cost and, in some cases, illicit nature of the drug (with some young people stating that they would be worried about being seen 'distributing' an illegal substance).

Young people claimed to still be receiving "handouts" at dance parties and bars, whereby pills were distributed free of charge, although it was believed that this was a less common occurrence than in the past.

LPPs were also purchased by young people. This was often undertaken as a group activity with friends, with the cost of the pills shared amongst peers (e.g. \$40 split between two people). Some purchasing was planned, particularly in anticipation of a big event (e.g. dance party or festival). In such cases, LPPs would either be bought in

advance, or on the day/night of the event. In other situations, the decision to purchase party pills was spontaneous and occurred after drinking “*in town*”, or on the way to a planned social event. Some young people purchased additional party pills during a social occasion if they needed to ‘top up’ their supplies.

Where LPPs were purchased, the main sources of the products identified in the research are outlined below:

- *Dairies/convenience stores*: were considered a handy source of the substances. Most young people stated that they did not seek advice from staff in dairies on the quality or effects of products, as they did not expect them to have specialist knowledge.
- *Liquor stores*: LPPs were sometimes purchased at liquor outlets, particularly when young people were also buying alcohol.
- *Sex shops/adult stores*: were widely recognised as party pill retailers, and a number of young people purchased LPPs from these venues (although some considered them “*dodgy*” or were embarrassed to be seen on such premises).
- *Specialist LPP stores*: were popular purchase locations, given the perceived wide range of products on offer and, in some cases, the knowledge and expertise of staff. They were a trusted source of information for many young people (e.g. on the effects of different pills). Young people in one region also highlighted that some of the party pill outlets had long term ‘sales’, and allowed customers to negotiate a reduced price. Others reported purchasing LPPs from a specialist outlet which also provided an alcohol-free venue where LPPs could be consumed on the premises.
- *Friends and acquaintances*: some respondents purchased LPPs from organisations or individuals with industry or manufacturing connections (in some cases, products were also supplied free of charge). Those who had used BZP powder or “*hummer*” stated that they bought this from ‘underground’ contacts, as it was reported that this was not able to be sold legitimately in retail stores. One respondent who used LPPs at work purchased them at their place of employment from another employee who had bulk supplies of the substances and sold them at reduced rates. Another interviewee stated that they sometimes sold on one or two pills to friends if they had extra supplies.
- *Clubs / dance parties*: a minority of young people reported purchasing LPPs in these settings. One interviewee stated that the products were sometimes sold for reduced prices in clubs: “*They were like half the price than what they usually are in the shop*”. [Interview 7]

Analysis of data from the pre-group/interview questionnaire identified that the median normal spend for an occasion of taking LPPs for those who bought the products was

\$30, with a range of \$10-\$70. One interviewee claimed to be paying \$2 per pill from a work-based source.

Purchase of LPPs by those aged under 18 years

Some of the young people aged under 18 years who participated in the research were purchasing LPPs from retail outlets, despite legislative changes introduced in 2005 which make it illegal to sell BZP-based products to a person who is under the age of 18 years. This was either achieved via the use of fake identification, or because retailers did not ask for proof of age. In addition, many respondents knew someone who had been able to access LPPs whilst under age:

Everyone that has ever bought them for me, or I've asked to get it for me, I've bought them myself, they have always been 17 and I've always been 17. [Interview 25]

Young people in this age range reported differing experiences with regard to being asked for identification when purchasing LPPs. On the whole, it was seen to occur less often than when buying alcohol, where enforcement of age restrictions was considered more commonplace:

They're not as strict as with alcohol. Like if you go into the same store and ask to buy party pills they won't ask you for ID. If you tried for alcohol they'll check with it. [Interview 1]

Some retailers were considered more thorough than others at checking the age of purchasers. 'Reputable' specialist stores, for example, were considered more rigorous at this, as a routine part of the sales process. In contrast, it was generally considered easier to purchase LPPs without age-based identification from dairies. A number of participants felt that it was dependent upon what 'you were wearing' as to whether or not identification was requested ("they're in their hot little dresses so they don't really get asked").

Purchase decision-making process

Findings from the research suggest that, when deciding what to buy, not all young people approach this task in a similar fashion. Some interviewees were content to take what was on offer when selecting products, and were not actively involved in the sale or overly concerned about which LPPs they purchased. Others were very particular with regard to their product requirements (e.g. level of BZP per pill). They tended to be fairly experienced LPP and other (illicit) drug users, and were more knowledgeable about LPP ingredients and their effects. Some young people were very habitual in their selection. They tended to purchase the same products every time, based on proven past experience, and were unlikely to deviate from their usual behaviour. Another group of young people were happy to make a joint decision with their friends, drew on other people's experiences, and generally went along with the group choice:

Because I don't really have a preference as such. With [name of friend] I'll take what she takes, but if I'm with somebody else, I take what they like. [Interview 10]

As part of the pre-interview/group questionnaire young people were asked to name the products they had used in the last six months. Although some indicated they could not remember the names of all they had used, 62 different products¹³ were named. Of these, the most commonly used products were Kandi (21), Charge (20), Red Hearts (18) and Ice Diamonds (17).

A number of key themes were evident with regard to young people's behaviour in deciding what products to purchase. These included selecting products based on the following:

- *Effect sought*: most young people recognised that some pills provided 'ecstasy-like' effects whilst others mimicked amphetamines, and different products were also recognised as having various strengths. Thus, in many cases, respondents stated that they selected products based on the type and strength of effect sought. This was sometimes driven by personal preference (e.g. some people did not like TFMPP-based products) or by the context of use (e.g. a non-hallucinogenic substance for studying).
- *Cost*: the cost of pills was a fairly important factor for a number of young people. This was assessed on actual cost as well as value for money – e.g. milligrams of BZP per pill or number of pills per pack. Interviewees in one region highlighted that some stores were negotiable on price, and would ask purchasers what they could afford.
- *Word-of-mouth or recommendations from others*: this mostly occurred when taking LPPs for the first time, or when trying new products. Friends were a key source of information, as were retailers in some outlets (particularly specialist stores). Young people generally sought advice on the strength or type of 'high' gained, as well as 'recommended' doses.
- *Quantity of BZP*: several people read the packaging to find this out, either because they were seeking or assessing the best value for money (i.e. a high level of BZP) or because they preferred a specific level of the substance (e.g. not too much, or not too little).
- *Perceived negative effects*: some products were known to produce a "clean" high or have less negative side-effects. Others were associated with creating a more "twisted" experience, which many young people did not like. Again, they had usually discovered this through 'trial and error' or via their friends' experiences.

¹³ People could name more than one product

- *Packaging*: this appeared to be less of a factor in deciding what to buy, although some young people spoke about the convenience of packaging that was able to be carried in a pocket, and the attractiveness of specific pack styles. For those concerned with quality and safety, there was evidence that a ‘shabby’ looking pack may signify a sub-standard product and be off-putting. Packets that gave the impression of being very strong, “*hard-out, rave-like*” pills were not appealing for some people, who preferred a milder high.

4.1.5 Places and context of use

Most party pill usage took place at night, during a social occasion, with the products used mainly for their stimulant, mind/mood altering or socialising effects (discussed later under Function of Use). Many young people stating that they took LPPs at home prior to going out, or on the way to an event or social occasion. Party pills were also taken during the course of the night, at a range of different venues. Day time consumption was generally associated with outdoor use, taking party pills at work, or solo and more ‘functional’ use whilst at home.

The places in which LPPs were used varied, and generally related to the context of use. The main locations identified in the research included:

- *bars / clubs / dance parties / gigs*: use in these settings was generally at night and accompanied by (mostly dance) music and friends;
- *flats or houses*: LPPs were taken in residential settings during parties – including smaller, more informal gatherings – or for more ‘functional’ (solo) use such as studying or to complete housework;
- *the workplace*: young people did not always specify the nature of their job but those who did (and were using it in this setting) were employed in factory work, sales, and the hospitality industry;
- *in the ‘outdoors’*: this was less common, but included rural settings and beaches. Use in this setting generally took place during the day.

The pre-group/interview questionnaire included a question which asked where young people normally took LPPs. Respondents could provide more than one answer. The most common responses were when clubbing, at home or going to parties¹⁴.

Amongst the young people interviewed in the research, the use of LPPs was almost exclusively undertaken with friends. The only evidence of people using LPPs on their own was apparent during more ‘functional’ use of the substances – e.g. at work, or for study or weight loss purposes (this is discussed in greater detail in section 4.1.11).

¹⁴ It is important to note that these were examples given on the questionnaire so were more likely to have been stated in their response.

Given that one of the key effects of these substances was reported as being enhanced social interaction, it was considered an experience that did not suit being alone or apart from friends. The importance of being around *trusted* friends when using LPPs was also raised by some young people. This related to having someone to ‘look out for you’ and provide support if necessary:

With taking party pills or just partying in general, you’ve got to look at, you’ve got to have good friends who look after you and each other. If someone is starting to do stupid stuff you have to tell them. [Interview 19]

One interviewee described how she only took party pills with her boyfriend, rather than a group of friends who were also users of LPPs:

With [name of boyfriend] we’re love dovey and we’ll last and we’re just kind of ‘let’s just do something fun together’, and it’s just a different relationship and different people, and I feel safe with him. Whereas with other friends I wasn’t safe, I didn’t feel safe. [Interview 12]

Using with friends often extended throughout the entire drug-taking occasion. This included the time prior to taking the drugs (e.g. at home drinking alcohol) and accessing the party pills – through to the latter stages of the occasion (including the day after using LPPs). In some situations, groups of friends congregated at someone’s house after leaving a club or party. This was often to continue the partying or, in some cases, to be together when the effects of the drugs were beginning to wear off. For some people this was an important element of the social experience – both in terms of providing support for one another and alleviating the negative effects together, as well as the opportunity it provided to discuss the previous night’s events.

Some young people had different groups of friends – those that used LPPs and those who did not. Whilst there was limited evidence of either group viewing the other’s behaviour negatively, some respondents described how they would not necessarily want to socialise with non-users whilst under the influence of LPPs. This was because they would find it hard to relate to people who were not going through the same experience or feeling similar effects:

Because if you’re drinking and someone else is taking party pills you know that they’ll last longer and have more energy, so you wanna be like on the same level and then normally it’s more intense as well I think the way that they are talking and stuff. I wouldn’t want to take it on my own knowing that no one else had taken it, I don’t know, you do it to be on the same buzz as everyone else. [Interview 2]

LPP use and driving

A number of the young people interviewed had driven after taking LPPs. In most cases this took place the next morning whilst returning home from an all night event. However, some had driven to an event after taking the substance at home. In some instances, this was undertaken before the drugs took effect, whereas others recalled that they had driven whilst feeling intoxicated.

There was evidence that some young people had chosen specifically to take LPPs when they intended to drive, such as being the “*designated driver*” for the evening, allowing them be intoxicated whilst not consuming alcohol.

There was a perceived lack of information on the safety and legality of driving after taking LPPs, with most young people assuming (but not necessarily sure) that it was legal. On the whole, driving after taking LPPs was considered safer than drink-driving. This was generally because it was believed there was less risk of an accident whilst driving under the influence of party pills, as young people felt that they maintained a greater level of control and focus. The fact that it was easier to disguise (than alcohol) was also appealing for some:

Interviewer: But you say you wouldn't be doing it [driving] if you've been drinking.

Interviewee: *No. Cos of the alcohol in your system. It just wouldn't be safe.*

Interviewer: Is it the safety.....?

Interviewee: *Just basically if you get pulled over basically. Alcohol they can tell but on drugs you just deny it basically. That's all I suppose.* [Interview 7]

Some young people asserted that their driving benefited – or improved – from taking LPPs, given a perception that they had increased concentration and alertness. There was, however, some distinction made with regard to driving during different stages of the ‘high’. Driving whilst “*peaking*” was considered to be more dangerous. A number of respondents commented that TFMPP-based products would be less safe to drive on, given their more euphoric and hallucinogenic effects (compared to BZP-containing products) and the subsequent impact that this may have on concentration levels.

4.1.6 Frequency of LPP use

The frequency with which young people were using party pills varied. Some respondents were using these products every week, whereas others used fortnightly, monthly, or less. One respondent had used party pills only once in the last 12 months, whilst another stated that she had previously used them three times a week, for around three to four months. Many also stated that their frequency of use varied throughout the year. For some, this was dependent upon availability of finances, whilst others (particularly students) commented that they used more during the summer when they were on holiday and when there tended to be an increase in social activities.

A number of respondents had reduced the frequency with which they used party pills – or the number of pills taken on a specific occasion. For most, this was due to the negative side-effects of the products – particularly the ‘comedown’ period which involved feeling ‘down’, an inability to sleep and a general sense of ill health¹⁵. These

¹⁵ This is discussed in greater detail in section 4.1.12

young people considered it was “*not worth it*” to keep using at the same level, and they were not prepared to “*lose a day*” or more recovering from these effects:

It completely wipes out your Sunday, Sunday night. And just as I said, the mood thing, I just can't handle the depression side of it. [Interview 23]

There is no way to describe how depressed I feel. That's why I don't like taking them. If I had no comedown I would probably take them all the time. [Interview 25]

Others spoke about life changes that had impacted on their frequency of use. This included getting a new job, a key drug-taking associate becoming pregnant and financial restrictions due to saving for a new car. Some young people also stated that they had “*grown up a bit*”, become more aware of the impact of their substance use on aspects of their life (e.g. work) and therefore adjusted their overall level of substance use, including legal party pills. One person had moderated their use after intervention from friends who were concerned about their drug-taking behaviour. Another interviewee had modified their level of (almost daily) use after becoming concerned about the impact of their LPP use on their moods and relationship with family members, and a belief that the products were “*addictive*”.

None of the young people interviewed stated that they had difficulties cutting down on their use of legal party pills. One person specifically stated that they suffered no withdrawal symptoms.

4.1.7 Dosage

Young people's behaviour varied with regard to the level of LPPs they were taking on each occasion. Some were only taking one pill, whereas others were taking up to six (or more) on each episode. For the most part, it appeared that many were taking more than the ‘recommended’ dose, with a number of interviewees reporting that they took around two to three pills per occasion. The pre-group/interview questionnaire identified that on the last occasion of use, the average number of pills taken was 2.1, with the majority of young people having taken only one to two pills.

Where people were taking more than one pill they often split their dose, and spread this over the course of the LPP-taking occasion. Data from the pre-group/interview questionnaire showed that the median time before the first and subsequent dose on the most recent occasion they had used LPPs, was 75 minutes. However, some people had also taken all the pills at once. One pair of friends interviewed reported that they sometimes divided capsules in half and shared a dose (this was in addition to having taken whole tablets).

Young people generally had a specific pattern of use with regard to dosage - i.e. some people would always only take one when they out to an event, whereas others would always take three or four. This was mostly dependent upon the degree of intoxication they felt comfortable with, with some people wanting to “*get wasted*” and others

preferring to remain “*in control*”. Others also spoke about negative side-effects and saw a correlation between the severity of these and the number of pills taken. One respondent, for example, only ever took one pill because they suffered “*uncontrollable jaw movements*” and felt that the severity of these was linked to the dose taken.

There was evidence that some young people were determining dose based on the resultant effects, rather than the actual number of pills taken. This involved taking a small amount in the first instance and judging the effects (i.e. whether or not they had reached the desired ‘high’) before deciding whether or not to increase the dose:

Yeah, you don't even think about how many you've taken – I'll have like three at first, and then if that doesn't last me the night I just take another until I've got the right energy.
[Interview 11]

The context and function of use (e.g. whether they were being used as a study aid, or at an all-night dance party) clearly influenced the dosage taken. Situations linked to lower doses included studying or work, with higher doses more likely to be taken during social events. Different pills were recognised as having varying effects and degrees of potency, and young people varied their dose depending on the product consumed.

Most young people had experimented with the effects of party pills and, through a process of ‘trial and error’, ascertained their optimal dose. One respondent, for example, had assessed the dosage required in order to study effectively and stay awake to finish assignments. Through experimentation, he had ascertained that six pills (three of one brand, and three of another) were the optimum mix to achieve the desired effect. Another who used LPPs as a study aid had worked out the best timing for taking doses to ensure that the ‘comedown’ period did not strike during an exam scheduled for the following day.

It was widely recognised that party pill packaging contained information on ‘recommended’ doses. Whilst this was sometimes referred to when trying a product for the first time, most relied on their own experiences – or those of their friends – in deciding how many to take. Some people were looking at the level of BZP per pill, rather than the ‘recommended’ dose when determining how many to take. It is interesting to note that a number of interviewees believed that the recommendations on packets were overly cautious, and would not provide a sufficient degree of intoxication:

You always read the stuff ‘take one’ but that's just ridiculous because one doesn't do anything, so you have to take more than one. So how many? If they gave you more of a thing like ‘take 3 or 4 to feel quite high’ or ‘6 or 7 to feel really fucked’. That would be more realistic than just saying one. No one would take that advice. [Interview 24]

There was evidence that the size of packaging was also influencing young people’s dosing behaviour, with larger packets thought to indicate weaker individual doses:

If you see it like a big packet you tend to think they're weaker. When you think 'oh there's eight of them, so they must be eight small doses...' so you might take more than it says because you think they're weaker. [Interview 10]

There were, however, some individuals who only ever took the 'recommended' dose and others who always used more.

It was felt that the effects could vary across individuals, despite taking the same dosage. A number of young people spoke about friends being more "out of it", or becoming intoxicated more quickly, despite taking the same number and type of party pills as their associates. Another factor influencing dosing behaviour included the availability of further LPPs whilst out (i.e. some young people stated that they may take more if offered by a friend when they had 'run out).

4.1.8 Routes of administration

The main route of administration for interviewees was swallowing LPP products in pill form. All interviewed stated that this was their primary means of ingesting the drug, and few had experimented with other forms of the substances.

A small number had snorted LPPs as a means of trying something new, and in the expectation that it would provide a "quicker hit". All, however, reported it as a very negative experience, as they had suffered undesirable side-effects. These included nose bleeds, watery eyes, headaches, and severe stinging in the nasal area. As such, most stated that it was a 'one-off' occurrence, and predicted that they would not try it again. One respondent commented that they had enjoyed the "hit" they received from snorting as it had provided a "rush".

Other routes of administration included swallowing powder (commonly known as "hammer"). This was described as a faster and "cleaner" high, compared to taking capsules or pills. Those who had taken BZP this way suggested that – at the time of the research – there was reduced availability of BZP powder (and the purchased price had increased) and taking the substances in this way was therefore a less common occurrence. A minority had also emptied capsules from LPP products into drinks and consumed the substance in liquid form. However, they noted that the strong and unattractive taste prevented them from adopting this method on a very regular basis. No young people interviewed reported injecting BZP or knowing anybody who had.

It is interesting to note that, where young people had experimented with different routes of administration, this was generally with the purpose of increasing the 'hit' obtained from the drug, or to shorten the length of time it took to become intoxicated.

4.1.9 LPPs and use of other drugs.

The research revealed that young people were using LPPs in combination with a range of other substances – both legal and illicit. In addition, they were using other substances at various stages over the course of a drug taking occasion. This included prior to taking LPPs, during the ‘high’, and afterwards when the effects of the LPPs had worn off.

It appears that the place or context of use was one key influence on whether or not other substances were taken. For example, where young people were taking LPPs to assist with studying, they were not using any other substances. This was because they were seeking to remain alert and focussed, without wanting to be being overly ‘altered’ by the drug. In addition, for those who used ecstasy in combination with LPPs, this was generally only undertaken if the social occasion was considered a “*special event*” rather than an ‘ordinary’ weekend outing. One young woman who had taken party pills over the course of a week in order to lose weight stated that she was using these in isolation at the start of the day.

A minority of young people stated that they did not use any other substances when taking LPPs, regardless of the place or context of use. Their main reason for this appeared to be related to a desire to maintain control and to not become too intoxicated. One respondent had previously drunk alcohol in combination with LPPs, but had stopped doing this because the effects of LPPs alone were considered more pleasurable:

I started really taking them when I first started clubbing and it was just to get a lot of energy to dance all night and then you start to learn that drinking with them is pretty horrible. You get a nicer, I don't know, high taking them alone or drinking alone rather than mixing the two.
[Interview 11]

There was some variation in terms of the range of other substances being used in combination with LPPs. As part of the pre-group/interview questionnaire, respondents were asked which other substances they ‘normally’ took with LPPs. The most commonly cited substances were alcohol, ecstasy and cannabis. Patterns of use relating to the main drugs discussed by respondents are detailed below.

Alcohol

Alcohol was a key drug consumed before and during, and for some people, in the latter stages of the drug taking occasion. A number of young people stated that they either consumed some alcohol, or were inebriated, before taking party pills. It appears that this occurred both in a planned, and a spontaneous, fashion. For example, respondents described how they sometimes took party pills ‘unexpectedly’ after

drinking over an extended period. In other situations they intended to take party pills, and spent the time beforehand drinking alcohol.

There were mixed experiences identified with regard to drinking alcohol after taking LPPs. Some stated that they stopped drinking at that point. In some situations this was because they were “*too busy dancing*”, in others, they simply lost the desire to drink alcohol¹⁶ and drunk water instead. Others maintained that the effect of the LPPs meant that they had an increased capacity to consume alcohol and were able to do so without experiencing usual feelings of intoxication. Indeed, a number stated that they sometimes took party pills as a way of “*sobering up*” after consuming alcohol, to allow them to carry on socialising.

Ecstasy

Many of the participants in the research had used ecstasy. Of those who had, different views and behaviour were evident with regard to the use of this substance in combination with LPPs. Some stated that they would not use the two together due to a belief that the LPPs would ‘distort’ the effects of ecstasy. Others used the drugs in combination – either taking LPPs first “*to get them going*” and ecstasy later on in the evening – or taking LPPs afterwards as a means of prolonging the experience.

Cannabis

As with ecstasy, the sample was mixed with some young people users of cannabis, and others who were not. Amongst those who were current users of cannabis at the time of the research, most were using cannabis in combination with LPPs at different stages of the drug taking occasion. This involved smoking before taking LPPs, during the occasion, and afterwards. In particular, a number spoke about cannabis having a specific function during the ‘comedown’ period, when the effects of the pills had worn off. The substance was felt to be effective in inducing sleep and reducing the agitation associated with this stage of the occasion. A couple of people spoke about it being effective in stimulating appetite (given LPPs’ apparent impact on reducing the desire to eat).

Nitrous Oxide (NOS)

Nitrous oxide was used by some young people in combination with LPPs – either whilst out, or after returning home from an event. One respondent commented that they liked the effect of LPPs on the NOS, as it increased the intensity of the high. A

¹⁶ This was sometimes related to a physical sensation in their mouth, which meant that alcohol tasted unpleasant. For other people, the high gained from the LPPs was sufficient and they did not want to increase or interfere with this in any other way.

number of respondents stated that they used nitrous oxide less often than they had in the past.

Other drugs used

A minority of young people spoke about using GHB, LSD, methamphetamine, ketamine and “*magic mushrooms*” in combination with LPPs. However, these were much less commonly used than the drugs previously discussed.

4.1.10 Users’ knowledge about LPPs

The research investigated young people’s knowledge of LPPs, with regard to ingredients and safe use of the products. In order to overcome the limitations of ‘group effect’ (i.e. where participants are influenced by what others say) this was explored both within the general discussion with all participants present, as well as in the pre group/interview questionnaire that young people completed beforehand.

Knowledge of ingredients

There were varied levels of knowledge with regard to LPP ingredients. Some young people claimed to have “*no idea*” what was contained in the products, whilst others appeared very well-informed:

I don’t know anything. I’ve got no idea. [Interview 1]

It’s saying like it’s got a piperazine blend. So, if it says BZP, that is benzylpiperazine. But if it says piperazine blend there is a bunch of other things that have the piperazine at the end of the word, so it could be a bunch of different things mixed together. [Interview 19]

Many of the young people interviewed were aware that “*BZP*” was an active ingredient of the products, and that the level of BZP varied across different brands and individual doses. There was also some awareness of BZP producing stimulant-like effects in users. However, their knowledge of benzylpiperazine generally did not extend beyond this. Whilst fewer people spoke about “*TFMPP*”, they attributed to it a hallucinogenic or “*e-like*” effect. For most people, the level of BZP or TFMPP in products, or individual pills, was closely associated with the strength of the high gained.

There was clear evidence of some misinformation with regard to LPP ingredients – identified both during interviews/groups and from the pre-group/interview questionnaire. In one case benzylpiperazine was confused with benzodiazepines and one respondent thought that because of the ‘p’ in ‘BZP’ the products contained methamphetamine. A small number of young people thought that either horse tranquiliser or pepper were key components:

I only know that there is pepper in some of them. Some friends snorted them. That's how we found out. [Interview 5]

Interviewee 1: *Horse tranquiliser or something isn't it?*

Interviewee 2: *No, it's not a tranquilizer, it's like cattle...*

Interviewee 1: *Oh yeah, de-wormer or something... Yeah that's the one, I knew it was something to do with animals. [Interview 9]*

Some were not concerned about what the products contained, or bothered about their apparent lack of knowledge regarding active ingredients:

They are just chemicals. I haven't really thought about it. [Interview 24]

In some cases, this was linked to the perceived safety and the legality of the substances – with many believing that, “*they must be safe*” and there was, therefore, no reason to consider what was in them. Others, however, were very particular about knowing the exact components of substances that they consumed and always checked the packaging before doing so. This was often related to a desire to control the drug-taking experience by knowing the type of effects that were likely to be experienced:

For me, I have to know exactly what I'm taking and if there is going to be TFMPP in it, I need to know how much is in it. I need to know what I am getting myself into. [Interview 19]

Knowledge of safe use

There was evidence of varying levels of knowledge amongst young people with regard to using LPPs safely. In addition, much of this information was generic in that it related to general drug-taking behaviour rather than LPPs specifically.

When considering safe use of LPPs most young people spoke about the level and combination of substances consumed. This included, for example, not taking too many pills (or powder) in one episode. For some individuals, it meant adhering to ‘recommended’ doses, as identified on the packaging. Many young people interviewed, however, were using more than what was ‘recommended’ and assessed a safe dose in terms of their own or other people’s (previous negative) experiences with the products:

That's stupid, people taking like, like my brother's friend [taking 18] you don't take 18 party pills. [Interview 1]

It was widely known that LPPs were not supposed to be taken in combination with alcohol. The vast majority, however, had ignored this advice on at least one occasion (for many it was a regular occurrence) and some felt that they had not suffered serious negative consequences from doing so. Several did, however, recognise that party pills could mask the effects of alcohol intoxication, which could lead to more alcoholic drinks being consumed, thereby resulting in a less safe experience:

Alcohol doesn't have the same effect when you take party pills. I think that's why people, you hear of people that take them, go to clubs, drink heaps of alcohol and end up in hospital. It's

cos they don't feel like they are getting drunk so they drink a lot more. So, once the party pills start wearing off, they are so dehydrated and so drunk there is nothing you can do about it. [Interview 19]

Some respondents highlighted that drinking water whilst taking LPPs was important. This was generally related to a perception that it was possible to become dehydrated whilst using LPPs – particularly when use was combined with extended periods of dancing. More experienced drug users noted that the level of liquid consumed needed to be monitored, as it was recognised that either too much – or too little – water could be harmful. A number of young people considered that eating before and after ingesting LPPs entailed safe behaviour. Some also associated this with minimising the negative effects of the ‘comedown’ period. In addition, some highlighted more general safety issues, such as only taking LPPs with trusted friends, and ensuring that people kept an eye out for each other whilst intoxicated.

Knowledge of safe use of LPPs was generally gathered from friends and acquaintances, perceived reputable retailers, and via young people’s previous (negative) experiences of using LPPs. Some young people also referred to labelling on product packets for this information.

It is interesting to note that some of this data was extrapolated from ecstasy information (e.g. the importance of keeping hydrated). This was either due to an absence of LPP-specific information, or because young people assumed that given the similarities between the substances and their effects – and the situations in which they were generally consumed – the information would be applicable:

I don't know why, but for some reason when you take party pills it suppresses your appetite and you don't feel like eating that much, but you've got to keep remembering to drink fluids and keep your fluid levels up. It's sort of expected to work like ecstasy where you have to watch your fluid levels. [Interview 18]

Some young people highlighted the mixed messages being given out with regard to using LPPs. This was specifically linked to sales of the products in liquor stores, with some people of the view that this appeared to conflict with safety messages about not using the substances together.

Perceptions of the safety of LPP products

LPPs were considered relatively safe by many young people, and generally less harmful than illicit substances. This perception was primarily driven by their legal status, widespread availability, and a belief that they would not be on the market if they had not had their safety ‘proven’:

That like, it [the fact that LPPs are legal] says to me that, I don't know if they have been, but that the Government has probably tested them and that they're okay. [Interview 15]

Some (generally more experienced drug users) disputed this ‘LPPs as safe’ claim in light of the negative side-effects associated with the ‘comedown’ period and the

sometimes unpredictable effects. As such, a number of interviewees considered them more harmful than illicit drugs such as ecstasy, and some were using them less often because of this.

Some young people commented that using LPPs meant that they were able to avoid illegal activity and access ‘substances’ in a safe way, and that their legal status meant that you could be more confident about what they contained, potentially from information on the labelling. As highlighted previously, others spoke about the ‘herbal’ associations which portrayed a ‘safer’ image for the products.

4.1.11 Function of use and positive effects

The research explored the function of LPP use. This included young people’s reasons for using legal party pills, and the perceived benefits or positive effects of this behaviour. This was self-identified by respondents. It is important to note that young people’s reasons for using LPPs sometimes altered over time, and was dependent upon the specific context of use. This meant that an individual may use LPPs for different reasons depending on the occasion. The main functions of use identified can be grouped into the following categories:

- Stimulant effects
- Social effects
- Mind/mood altering effects
- Appetite suppressant effects
- To enhance a (mundane) event
- As a replacement for another substance.

Stimulant effects

LPPs were most often used for their **stimulant effects**. In this context, young people spoke about using LPPs to increase energy and endurance – and the ability to stay awake for long periods – for a wide range of activities. These included dancing (and dance parties), general socialising, and for work and outdoor pursuits such as fishing and skiing. One interviewee took party pills before tackling the housework, as she claimed that it gave her energy to clean more “*thoroughly*”. Some highlighted the benefits of being able to “*keep partying longer*”, and others reported that they provided a ‘boost’ when energy levels were flagging:

By the time I get to the weekend I am pretty tired and I’ve got to make the most of the time that I have with my friends a lot of the time. I make the most of going out and dancing so I don’t get tired because I enjoy that part of my life so much. Energy pills give me the opportunity to make the most of it for as long as I can. [Interview 19]

I've taken them a couple of times at work on really long shifts when I was cleaning when I was doing my old job...Like it's lots of cleaning and just lots of physical activity so it made it so much easier if you are doing 14 hours of that. [Interview 10]

It just helps me get more active and get on the dance floor and stuff and want to do stuff rather than sit there and watch everyone else do it. Because that's what I'm like. I'll sit there and watch someone else do the dance because I just can't be bothered. [Interview 18]

Drawing out social events following extended drinking periods was also cited as a reason for using LPPs. In this context, they were used either to stave off tiredness or as a means of “sobering up” to enable the occasion to last longer.

Linked to the stimulant effects of the substances, a number of young people had utilised LPPs as a study aid. This was generally undertaken when a large amount of work needed to be completed in a short amount of time (i.e. completing an assignment or studying for an exam) and they wanted to stay awake over a long period. Interviewees stated that the products increased their capacity to work for longer periods, and improved memory and overall levels of concentration. As such, some claimed that they completed assignments more quickly when taking LPPs. All who had used LPPs for this reason had studied through the night, and some had been required to complete an exam the following day.

Social Effects

It was widely reported by research participants that use of LPPs increased their communications skills and made them feel more confident, and sociable. As such, many were using the substances for their **social effects** – as a means to meet new people, engage in “interesting” conversations, and to increase self-confidence. They reported feeling more comfortable generally in social situations, and some stated that they were more extroverted when taking LPPs:

It makes me more extroverted. I wanna get out there and mingle with everyone whereas normally I'd be happy to sit there with my few drinks by myself. [Interview 18]

You'll go to a club and you'll sit down outside and meet somebody totally random and you can be there for an hour talking to them and having a real good time. [Interview 6]

One young woman described attending a social function where she knew she would not know anybody, and predicted that she may feel slightly uncomfortable. In order to overcome this, she took a legal party pill, which enabled her to converse comfortably with strangers, and generally feel more at ease:

We had a ball to go and I didn't know anyone there, and I thought I'd just like some herbals because I didn't know how this was going to go, so I thought I'll just have some in my bag to see how it goes. .. They made me chatty for a good hour, it was about the only hour I talked. [Interview 23]

Many stated that they had more “in-depth” conversations whilst under the influence of LPPs. As a result, respondents reported that they forged stronger bonds with people through taking LPPs. Some highlighted that this also occurred in the period

after the effects of the drug had worn off, when friends sometimes gathered to be together during the ‘comedown’ period:

Yeah, stay up and talk for hours. I can't sleep. That's all part of the fun for me. I like being comfortable at home so it's all part of the fun time. Coming home, if I can eat, thinking of something to try and eat, sitting around, talking for hours especially at my old flat, us girls. [Interview 5]

Mind/mood altering effects

One reason identified for taking party pills was for their **mind/mood altering effects** and several young people spoke about the nature of the ‘high’ when considering this aspect of LPP use. In this context, party pills were being used to enhance the way that young people felt, or as a means of experiencing specific feelings of intoxication (e.g. to feel “wasted”). This included the “buzz” experienced during the ‘peak’ of the drug-taking occasion, as well as a general sense of “*exhilaration*”:

How do you describe the peak? It's kind of exhilarating and a bit whooo – everything's all good. [Interview 12]

It makes me happy and active. It makes me want to talk lots. It makes me feel all inspired. It just makes me more awake and more alert. I enjoy that sort of buzz. [Interview 19]

A number of respondents commented upon the appeal of sensory effects experienced when under the influence of LPPs. This generally related to the way their skin felt or the increased sensation when touching their hair. Some described the attractiveness of visual effects, with, for example, lights seeming brighter and more enhanced:

I remember once though I did like, I'd had them before I started drinking and I kept touching my hair because my hair felt really good. [Interview 1]

With party pills it's often sometimes I get like a sensory, I don't know, a sensory, a tactile – if I'm touching my skin it might feel a bit more tingly. [Interview 12]

When you're dancing the lights look prettier and you can just like your movements seem faster and feel you know, like it just feels like you're moving better. [Interview 23]

Appetite Suppressant Effects

Some young women interviewed had taken LPPs because of their **appetite suppressant** qualities and spoke about weight loss as a positive outcome of using LPPs. In some cases, they were taken in the context of socialising, with their appetite suppressant effects being another reason for using:

Me and [name of friend] have got the same figure and stuff. We have little podgy bits around here so we get the permanent creases. But after party pills you're all sunken in and you don't have those. It makes you so much more confident. And throughout the night you can feel more and more confident because you know it's happening, you can feel it happening. [Interview 25]

For others, however, they were specifically chosen because of their potential to generate weight loss (e.g. less calorie gain than drinking alcohol over the same

period). One young woman interviewed described how she took LPPs over the course of a week in order to lose weight:

I had a week where I just took a couple of party pills for the week and I think I lost a bit of weight but as soon as I came off the party pills I just put it back on again. I think there's a trick to it but I don't know what it is. [Interview 21]

Enhance a (mundane) event

LPPs were sometimes used to **enhance a (mundane) event**. This included activities such as work, grocery shopping, during a tertiary course, and driving. In such circumstances, some young people stated that they took LPPs because there was nothing better to do, or because they were “*bored*”:

Interviewer: Thinking about that situation, what kind of prompted you to take party pills that day?

Interviewee: *Because we were bored [laugh] and we just wanted to go get some in the morning before Tech and then it was real funny at Tech because we took these ones I call the [name of product] and it was just real funny. [Interview 26]*

When using LPPs in this way, it was not always a planned occurrence. Some young people reported it as a ‘spur of the moment’ decision to alter an everyday experience or to alleviate boredom. One respondent took party pills at work on a fairly regular basis, and was often motivated by a desire to improve her mood at work:

I could be having a crap day, feeling like crap, just not wanting to be there, not wanting to talk to anyone, take a pill and they're my best friend, like everyone. [Interview 22]

As a replacement for another substance

In some cases young people chose to use LPPs **as a replacement for another substance**. Amongst the young people interviewed this mostly included alcohol or ecstasy.

In some cases, young people chose to use LPPs because they preferred the effects to those produced by alcohol. Others felt they maintained greater control or liked the fact that they were able to become intoxicated more quickly:

[It is a] quick fix, take it and instead of drinking and drinking and drinking and then throwing up. [Interview 1]

In addition, some respondents consumed LPPs rather than alcohol when they were required to drive on a “*night out*”, as this was considered a safer alternative.

For a number of young people, ecstasy was their preferred substance and LPPs were considered ‘second choice’. However, in situations where ecstasy was unavailable, or the cost of the drug was a barrier, LPPs were taken instead. One young person stated that they took party pills as a means of reducing their level of ecstasy use, and because

they initially considered it to be a less harmful substance. However, as the following interview extract reveals, they were beginning to reconsider this course of action:

A kind of a summary of the thing is like I don't want to take E all the time. I do it every weekend. I used to only do it about once every three months or once a month but I'll take party pills for a quieter night because I don't think they're going to harm me as badly, but I'm starting to think differently now. [Interview 11]

Other respondents reported that they used LPPs instead of other substances, due to the legal nature of the drug:

There is [sic] all these other people that go out there and they do P and stuff like that and I'm really not into that. I prefer doing something that's legal. [Interview 18]

One young person talked about LPPs being more socially acceptable than “class A’s” (such as ecstasy). As such, they were more comfortable taking them at family functions (e.g. an engagement party) where they felt it would be less appropriate to be using a substance such as ecstasy. Another respondent stated that it was “easier to disguise” being under the influence of LPPs, compared with other drugs such as methamphetamine.

Other functions of use

Other reasons for using party pills identified included: to experiment or try something new; and, as a way of saving money (for those who did not drink alcohol when using these substances, it was considered a much cheaper alternative than a social occasion which involved alcohol only).

Pre-group/interview questionnaire data

Positive effects and functions of LPP use identified during the groups and interviews were similar to responses recorded in the pre-group/interview questionnaire. When asked about the good things experienced when taking LPPs, those most commonly reported were increased energy, being able to stay awake, feelings of euphoria, having fun, altered pleasant sensory perceptions, and being talkative. Other less commonly cited positive experiences were not being shy, being able to connect with people, feeling calm, being ‘out of it’, and friendliness.

4.1.12 Negative effects of LPP use

The research explored young peoples’ experiences of using LPPs and the negative effects of these substances. Most interviewees identified several negative associations with LPPs. Some of these were experienced whilst intoxicated (i.e. during the ‘high’). Others, however, were suffered after the effects of the drug were beginning to fade, or had worn off. This was commonly referred to as the ‘comedown’ period, and was a recurring issue raised across all interviews/groups with young people.

The presence or severity of negative impacts were felt to be dependent upon the type of pill taken, the level of dosage, user's mood prior to taking the substances, the combination of drugs and alcohol taken, ingredients of LPPs, and whether or not food was consumed beforehand.

It is important to note that, whilst some of the negative effects below were attributed to LPPs, young people themselves acknowledged that it was difficult to separate these out from other potential confounders (such as loss of a night's sleep, increased alcohol consumption etc). In addition, it was not possible to discern from the transcripts which of these related to negative effects often experienced while the LPPs were having an effect or afterwards. However, some (e.g. dilated pupils and tachycardia) are likely to be immediate effects of the BZP.

Negative physical effects

A vast range of negative physical effects were identified by young people. However, not all young people stated all of these. The key issues identified included: tiredness and sluggishness the next day, sore or dry mouth, sore jaw, headaches, vomiting and nausea, dehydration/inability to quench thirst, sore or shaking body and an inability to urinate. Less cited negative impacts included impaired sexual performance, dizziness, sore eyes, fast or increased heart beat, sore stomach, hot and cold fevers, teeth grinding, increased rates of smoking¹⁷, and bleeding nose (from snorting).

The following interview extracts reflect the kind of comments made by respondents when discussing negative physical impacts related to LPP use:

You've got you know the terrible cotton mouth and just the constant need for water, but it never quenches your thirst. [Interview 23]

Cause your heart – the bad thing is, like, your heart goes really fast and you can feel it, like when you put your arm against your chest, like you feel your heart going “boom, boom, boom, boom” really out of control speed. [Interview 21]

I just feel really tired and can never get to sleep and feel really shaky and like my heart – Yeah really like my heart's beating really fast, don't feel like doing anything – I just feel really lazy but get really frustrated because, yeah you're awake and you want to do something or you want to sleep but you can't sleep. [Interview 10]

Negative emotional or psychological effects

The vast majority of negative emotional or psychological impacts effects appeared to occur during the 'comedown' period. Common impacts identified included feeling: depressed¹⁸ or down (including crying for no particular reason); frustrated (wanting to do things but not feeling physically able to); tense and edgy (this included “weird thoughts” and an “overactive” mind during and after the drug-taking occasion); angry

¹⁷ Some young people also claimed that they smoked far less when taking LPPs.

¹⁸ Whilst not discussed during the research interview, one respondent indicated in their pre-group questionnaire that they had felt suicidal after taking LPPs.

or annoyed (experienced both during drug-taking occasions and afterwards); anxious or paranoid (several young people had experienced anxiety whilst under the influence of LPPs). Some reported withdrawing from social interactions in the day(s) following LPP use.

Other effects commented on by a smaller number of young people included feeling “*spaced out*” whilst intoxicated, resulting in an inability to engage with other people (including friends), and bad dreams.

The following interview extracts reflect the kind of comments made by respondents when discussing negative emotional or psychological impacts related to LPP use:

Sort of depression, but not really, it's like, you know, when a woman gets her period she just really starts nagging at people and stuff like that, it's more like that. It's hard to explain really. You don't feel really sad or anything. You just feel tired and want to go to sleep and other people come in and try and try to keep you awake and you're like 'fuck off man'. [Interview 18]

It [TFMPP] gives me anxiety. I think I'm quite an anxious person already. I used to have anxiety problems. It's the same reason I can't smoke pot. It's way too intense and makes me claustrophobic. It has the opposite effect of what I want it to do. It makes me very antisocial and makes me want to run away basically and want to be by myself. [Interview 19]

The next day I feel really crap. The next day, and the day after that I still feel a bit dodgy like as in weird thoughts, still a bit whacked. Because with party pills you actually still get the psychological comedown I think like you get the next day, guilt and all that sort of stuff. [Interview 2]

Impacts related specifically to the ‘comedown’ period

A number of negative impacts were specifically identified as relating to the ‘comedown’ period. Those most often commented on by young people were: lack of sleep / inability to sleep¹⁹, loss of appetite, lethargy, headache, nausea, feeling depressed, social withdrawal, aching and tense body, impaired work or study performance (including employment absences), and dehydration. Those less commonly cited included: fast heart beat, inability to communicate, tension and agitation, breathing difficulties, ringing ears, and sore jaw.

Other negative impacts identified

A range of other negative impacts were identified by research participants. One of the most commonly discussed was the lack of sleep. Most young people highlighted that a typical LPP episode involved staying awake for an entire night. In addition, when they did manage to sleep, this was often initially for a short period only, or consisted of a ‘broken’ sleep. A number described the frustration they experienced in attempting to sleep after taking LPPs:

¹⁹ Most young people highlighted that a typical LPP occasion involved staying awake for an entire night.

With party pills as well, when you just have that energy thing still left in you, oh that sucks. I just want to go to bed sort of thing. I'm not out of it anymore but still can't sleep. [Interview 10]

At the end of the night you don't really feel tired. Like your body feels tired. When you think about it all you want to do is lie down. Your body is exhausted but your mind keeps going. And yeah, you just feel terrible and shaky and weak. You close your eyes but you keep seeing things and your mind won't stop. Your body is saying 'I want to sleep' but your mind is 'whaaa, whaaa'. [Interview 24]

Respondents spoke about appetite suppression and a general inability to eat as negative side effects of using LPPs. Some stated that they attempted to eat, in an effort to replenish their energy levels. However, feelings of nausea, and the unpleasant taste of food in their mouth, meant that they were often unable to. This occurred whilst intoxicated and, for many, extended into the following day.

As a result of the above, short term weight loss was an identified consequence of using LPPs. Whilst most young people who spoke about this classified it as a positive impact, the exception to this was one young woman who described how her weight had fluctuated during the period when she was a heavy user of these substances (she had since reduced her level of use):

I would always lose or put on weight. I was also a lot heavier because I wouldn't eat for the whole weekend and then have a couple of days where I would still not eat probably through not having my appetite back. But then for 3 days flat I would just eat and eat. Instead of losing weight I'd put on weight because my metabolism had slowed down so much. [Interview 19]

The impact of LPP use on employment was evident when discussing negative effects. This mostly related to the period after taking party pills, and affected young people who were required to work the next day. These interviewees (some of whom went straight to work after having missed a night's sleep) spoke about the difficulties in maintaining a consistent and effective work performance during this period. They described feeling and looking tired, a lack of interest in communicating with colleagues or customers, and a general feeling of wanting to be someplace else. Some young people reported missing work days as a result of their LPP use:

Definitely the next night if I have to go to work, I can't work, I'm extremely slow. Everybody gets really pissed off. So I try not to go to work the next day. [Interview 7]

Moderating or Exacerbating Factors

The young people interviewed felt that the presence or severity of negative impacts was dependent upon a range of factors. These included:

- *The type of pill taken*: some products were associated with a more severe 'comedown', or a "mangled" or "twisted" high. In particular, a number of young people claimed that pills containing TFMPP induced more negative effects, with some reporting that these products made them feel "messed up".

- *The dosage*: it was generally perceived that the more pills consumed, the worse the ‘comedown’, and the greater the potential for more severe effects during the ‘high’ (e.g. vomiting).
- *User’s mood beforehand*: if feeling tired or ‘down’, young people felt that it was more likely that LPPs may have a negative effect (e.g. evoke anger or depression).
- *The combination of drugs and alcohol taken*: it was felt that if LPPs were used in isolation, there was a reduced incidence of negative effects. By comparison, drinking (large amounts of) alcohol on LPPs was felt to increase the likelihood of a severe ‘comedown’ or vomiting during the drug-taking episode.
- *Eating patterns beforehand*: some believed that taking LPPs on an empty stomach increased the risk of negative side effects, such as nausea.

The impact of negative effects on LPP use

There was some level of acceptance of the negative effects of LPPs, with regard to there always being a downside to drug consumption. Indeed, most referred to alcohol hangovers or the ‘comedown’ from ecstasy, and the way in which they were affected by these, as a yardstick for comparing the effects of LPPs.

Aside from a small number of individuals, the ‘comedown’ period was considered to be far worse with LPPs than with other substances. This was in terms of the harshness of the effects, the length of time it lasted and the generally more severe emotional impacts (e.g. feeling depressed).

For many individuals, this had resulted in a change in behaviour – with some reducing the frequency with which they used party pills or the dose at each occasion. Others accepted the negative side of party pill usage as being “*worth it*”, given the positive effects experienced whilst under the influence of the substance. One respondent highlighted that it was made better by the fact that other friends were also experiencing similar effects. For these individuals, the ‘highs’ outweighed the ‘lows’.

You just live with it. It’s part of it... Well it’s just so much fun when you’re doing it you don’t really mind suffering for it. [Interview 1]

There was evidence of some young people rationalising the reasons behind negative incidents occurring. For example, they spoke about people taking too many and not being able to “*handle it*”, or inexperienced and ignorant users who could have minimised the negative effects if they had been better informed around sensible use. With regard to their own behaviour, in some cases, they also believed that the severity of the impacts was increased due to the level of alcohol or other drugs consumed, the number of pills ingested, and the loss of a full night’s sleep. As such, they sometimes

did not attribute all the negative effects to party pills alone. The following interview extracts express the types of views young people held with regard to this issue:

I think with party pills it's so hard to tell what's causing it, whether it's the mixture or whether it's the party pills because there's so many other things it's really hard to know what it is. [Interview 10]

Well I don't know if it was just the party pills or if it was because I drunk way too much on them, but I know that it says on the back not to mix BZP with piperazine, but that's what we did. So we'd already taken a couple at the time and we just were like 'oh, it won't matter' but it was our own fault. [Interview 21]

Strategies for minimising negative impacts

The research revealed a range of strategies adopted by young people in their attempts to minimise the negative impacts of LPP use.

Some of these involved changes in behaviour with regard to patterns of use. For example, several young people spoke about reducing doses, whilst others selected products that they considered less harmful (e.g. contained BZP only). One group of young people described how they took a serotonin-replenishing product (purchased from a pharmacy) when they knew a “*big weekend*” was coming up.

Others employed strategies during the drug-taking episode. These included drinking water, liquids such as orange juice or Powerade, or taking ‘recovery pills’ that are sometimes sold with LPPs (some people also took these the following day). One group of respondents felt that keeping friends close by assisted in alleviating negative effects, as they were able to provide support if required.

In the period following LPP use (i.e. during the ‘comedown’ phase) respondents identified a number to minimise the negative effects. These included “*keeping busy*” until the effects wore off (e.g. watching DVDs), ensuring that some food was consumed (even if they did not feel like eating), smoking cannabis (to relax, increase appetite and try to evoke sleep), drinking water or “*smoothies*”, and taking vitamins or other supplements.

Some planned carefully when they took party pills. For example, several young people stated that they only liked using LPPs on Friday nights, as it allowed a longer recovery period. Others ensured that they had no commitments the following day. One user had observed that the ‘comedown’ was not as harsh when party pills were consumed during the day²⁰.

²⁰ It is difficult to attribute this to the time of day only, as the respondent also tended to be engaged in different activities at this time, compared to when LPPs were taken in the evening (e.g. were less likely to be drinking).

4.1.13 Use of support services

None of the young people interviewed claimed to have accessed support or help in relation to their use of LPPs, or had friends who had done so:

Well, I'm talking more for the general public, as opposed for myself because I know how to control what I take and how much I take. I've had a few bad experiences just like everyone has but, um, there are a lot of people coming into the party pill world for example who end up in hospital. I've been taking party pills for years and I've never even come close to needing to go to hospital because of it. [Interview 18]

A small number of participants 'knew of' people who had required support after taking LPPs (these were generally 'one-off' incidents at events or gigs rather than longer term treatment). A couple of young people also recounted incidents where they had been present at events when someone had been adversely affected by substances presumed to be LPPs.

4.1.14 Awareness, knowledge and views of legislation, and impact of legislation on attitudes and behaviour

The research explored young people's awareness, knowledge and views of the LPP-related legislation, and the impact of their legal status on research participants' attitudes and behaviour.

Awareness and knowledge of the legislation

Most young people who participated in the research were aware of age-related legislation for LPP products. Whilst 18 years was widely recognised as the age at which this was set, there was some uncertainty over what this actually meant. Some believed it was illegal to buy LPPs if the purchaser was under 18 years, some thought it was unlawful to sell to people in that age range, and others believed it was against the law for young people aged 17 or under to consume LPP products:

I'd say it's exactly like alcohol, your parents will buy it for you, they give it to you and you can take it and then if you get someone to buy it for you you're fine, but you're not actually allowed to buy them. [Interview 1]

It is interesting to note that a number of people believed that the age restrictions had always been in place (i.e. since LPPs had begun being sold in New Zealand) and were therefore unaware of the 2005 legislative amendments. This could, in part, be due to the fact that some of these young people had only begun purchasing LPPs since this time. Some, however, stated that they had been asked for identification prior to June 2005²¹. Others assumed that there had always been age-related purchasing laws:

²¹ Some retailers claim to have been following a voluntary code of conduct with regard to not selling to young people under 18 years prior to the legislative changes in 2005 ([URL: http://www.stanz.org.nz/codeofpractice.htm](http://www.stanz.org.nz/codeofpractice.htm))

Interviewer: What's your impression of when the R18 restriction for buying party pills was introduced?

Respondent: *I don't know, I haven't even heard anything about that. I just always thought they were. Were they not?* [Interview 21]

Beyond this, there was very limited awareness of other legislative issues. A minority of people had a misinformed belief that that there were limits set on the level of BZP contained in each pill. One person – who had specifically researched LPPs through their employment in the health sector – was aware that BZP was now a “*class D drug*”. Another recalled that a BZP-containing drink which had previously been available in dairies had been “*banned*”. Whilst not always attributed to a law change, several young people had noticed a reduction in giveaways at events, changes in the style of packaging, and the fact that it was no longer possible to ‘bulk buy’ large quantities of LPP pills.

Views of current legislation

The vast majority of young people interviewed supported age-related legislation, as a means of controlling access to younger users:

I think there's a big age thing as well. I get see 18 year olds being responsible enough to take two and have a good night, maybe drink as well. All good. You start throwing it into a 16 year old's mouth, he's going to take four of them. He's going to be the one that ends up in hospital with heart problems, spewing up not knowing what the hell is happening. [Interview 6]

There was also strong (unprompted) support for banning sales from dairies – primarily due to concerns over these retailers’ (perceived lack of) vigilance in requesting identification from purchasers. Some believed that the sales of LPPs from dairies also meant that the products were too visible to young people.

A minority felt that the legislation could go further with regard to legislating against driving under the influence of these substances, and in limiting the size of individual purchases (e.g. 2 pills per sale).

Impact of legislation on attitudes and behaviour

As highlighted earlier in this report, the legal status of LPPs conferred a sense of ‘safety’ on the products for some young people. A number of interviewees reported that this affected the way in which they used the substances, as evident in the following interview extract:

Party pills are definitely like you can just go over the top very easily. It's like ‘I'm starting to run out of energy now and let's have another one’. Because people treat them like, just like they're legal, so you can just disrespectfully have more and more. [Interview 11]

Several young people stated that they were more ‘careful’ when using illicit drugs such as ecstasy, as their illegal status meant that they were taken more seriously:

With say ecstasy, I wouldn't take it as frequently. I would be more worried about my psychological stability, those kinds of serious effects. Whereas with the legal stuff, I would be less worried about that. I would be happy to take that more frequently. [Interview 12]

A strong link was made between the legal nature of the products and their widespread availability and accessibility in a wide range of retail locations. Young people reported that this meant they were able to purchase the products on the “*spur of the moment*”, resulting in more unplanned use. A number highlighted the fact that it was much easier (and quicker) to obtain LPPs, compared to illegal drugs.

One interviewee reported that when she first started using LPPs she was not interested in using illicit substances, and the fact that LPPs were legal meant that she was prompted to try them:

In terms of party pills I was first introduced to them, I think I was first told about them when I was probably about 18 or something. A friend sort of mentioned these, you know, legal sort of drugs and I was just like 'that's bullshit' pretty much. It wasn't until like a year later I went to my first rave or dance party and some of my friends were doing illegal drugs and I didn't want to do that and I spoke to some of my other friends and they were like 'why don't you try legal ones?' So I did and thought it was great. [Interview 16]

Findings from the research suggest that the products' legal status makes the use of LPPs somewhat socially acceptable. Some young people commented that, whilst they would not reveal illicit drug use to other non-drug users (e.g. work colleagues) they may tell them that they had used LPPs. This was also apparent with regard to revealing LPP use to family members, with several respondents stating that their parents were aware that they used legal party pills, and that this was viewed more favourably than other (illegal) drug use. It is interesting to note, however, that a number of young people stated that they would be uncomfortable revealing LPP use to family or acquaintances. This was due a belief that these individuals would assume this was an indicator of involvement in other (illicit) drug use:

I wouldn't admit to my boss or my employer that I take party pills or anything like that because usually generally speaking like people who take party pills on a regular basis take a lot of illicit drugs. [Interview 11]

Many respondents predicted that they would not continue to purchase (or use) LPPs if they were made illegal. This was predominantly due to a belief that the products would be more expensive and harder to access. Some stated that they would not be prepared to risk a criminal conviction with regard to party pills – particularly in light of the perceived inferior ‘high’ compared to their illicit counterparts (e.g. ecstasy).

4.2 ‘Key informant’ interviews

4.2.1 Description of sample

Whilst some interviewees had little or no first hand experience of young people's use of LPPs (and thus some of the data are anecdotal in nature) given their broader

knowledge and experience with regard to substance use or youth-related issues, their views relating to potential impacts on young people were of value.

In total, 21 key informant interviews were carried out with representatives from the following: AOD services; hospital and other health services; education; youth organisations; the LPP and hospitality industries; and, national drug organisations. Most KIs were older than the 16-24 age group of the LPP users.

Results from interviewees directly involved in the LPP industry are presented later in section 4.2.5. The following sections 4.2.2 to 4.2.4 comprise results from the other KIs.

Quotes have been grouped into categories identified as: AOD, ED, other health, education, hospitality, drug organisation, and industry.

4.2.2 Perceptions of LPP user demographics, usage patterns, trends in use.

Availability of data on LPP users, patterns of use and impact of use

In general, at the time of the research, very little routine data collection was occurring with regard to LPP use. Some EDs were collecting data on substance-related presentations, although one ED interviewee commented that prospective data collection was needed, as retrospective data collection from case notes did not always provide complete information. AOD services were recording LPP use where information was offered, but did not always routinely ask about the substances. It was also suggested that clients did not always see LPPs as drugs and would not necessarily report use of them, unprompted.

LPP user demographics

Very little information was forthcoming from respondents with regard to user age, gender or ethnicity. Thus, much of the following outlined below is anecdotal in nature. In general, the impression was of a 16-25 year old (predominantly) New Zealand European user group, with a 50:50 gender split. Most interviewees felt that LPP use amongst Pacific communities was very low and one interviewee asserted that, where Māori were using these substances, they were likely to be urban-based and may not have iwi or marae affiliations. Comments from ED interviewees indicated slightly more females accessing services, although numbers overall for LPP-related ED presentations are small. An interviewee who was employed at music events in a health-related role noted:

You know if we have somebody under the age of 25 or 28 presenting with unknown unconsciousness we will suspect, once we've excluded a diabetic collapse, head injury, we will then suspect a mind altering substance and generally not alcohol. If it's somebody above the age of 28, 30 it's more likely we will suspect alcohol. Um so it's really just those generations really. [Other health]

Interviewees identified what they believed to be types or ‘subcultures’ of users. The general view was of young people involved in the “rave scene”, whose socialising involved partying and dancing, and who were “normal, young kiwis”. One interviewee commented:

I think they're probably white, middle class, pretty on to it young people. When I say on to it, you know, like they're kids that are probably under the same perception I am as a mum in that they're legal so they're okay, they're safe. Probably, you know, quite on to it kids that are probably less likely to use that hard stuff and the illegal stuff. That's my perception.
[Education]

Purchasing or obtaining LPPs

Interviewees’ awareness and views of current LPP outlets was sought in the research. Overall, a wide range of outlets selling party pills was identified. These included specialist LPP shops²², “alternative, crystally” shops, liquor outlets, clubs, clothes stores, gift shops, fast food outlets, ‘adult’ stores, and dairies or convenience stores. Internet sales and the delivery of party pills via mobile 24 hour van services (with orders able to be received by text) was noted, and one person knew of a residential house which acted as a supply point. The same interviewee had also heard of LPPs being sold in an ‘ad hoc’ manner via a temporary ‘hole in the wall’ stand set up between two buildings in a central shopping area. Some people spoke about free samples and promotional sales having been available in the past.

A hospitality industry interviewee believed they were less likely to be sold in clubs than in bottle shops. This person believed that LPPs were not in line with their company image with regard to clubs and bars:

We spend a lot of money on fit out, we've got a strong food influence and so forth and the product doesn't really complement what we're trying to do as a company. [Hospitality industry]

An interviewee who had previously worked in a dairy which sold LPPs said that, whilst some ‘planning’ occurred during the week, most purchases took place over the weekend and also after clubs closed. Some interviewees were aware of party pills being purchased and shared between friends, with similarities drawn to alcohol purchase behaviour:

So I mean I think certainly people, or often the other thing is that we found that friends are sharing them, that they'll buy a packet and then they'll share them through the friends, you know, instead of buying a round of drinks they'll buy a packet of party pills and share between each other.[ED]

The majority of KIs believed that access to LPPs should be restricted to ‘appropriate’ outlets. On the whole, dairies and other general retail outlets were viewed as not being suitable – particularly given the likelihood of children and young people under 18

²² This included one retail outlet which was also an alcohol-free venue where young people could purchase and take LPPs on the premises.

being present on such premises. One interviewee suggested restricting access to products from retailers who had some level of social responsibility such as “*off-licences and specific retailers*”, although they also questioned the appropriateness of liquor outlets, given that the sale of the substances in such venues was seen to be at odds with advice about not mixing LPPs and alcohol:

Yeah and actually, you know, should those pills be sold where there's alcohol sold? I've been just thinking about the retailers and their shops I don't think it should be sold where there's alcohol. Interviewer: How come? Because that's some of the where the greatest problem seem to be occurring are the combination of alcohol and BZP so it's a bit like gambling – if you've got a cash machine right by the pokey machine you're going to increase the gambling. So if you've got pills and alcohol you're going to increase the risk of harm. Much better that they couldn't be sold in certain venues. [Drug organisation]

Two things, I would limit their accessibility to licensed premises, whether it be on or off premise [clubs or liquor stores] and definitely have a limitation on how many packets someone could buy at one time. That doesn't stop them from walking in and out the door but at least all those things become barriers. [Hospitality industry]

Other interviewees also questioned the suitability of liquor outlets as purchase points for LPPs, although some felt there could be an advantage in that such venues were familiar with requesting identification from customers. One interviewee believed mobile delivery services should be banned:

I think there should be some enforcement around the sale and I don't think you should have 24 hour mobile cars delivering them anywhere to people. There's no responsible marketing or retailship there. [Drug organisation]

Routes of administration

Swallowing a tablet, capsule or pill was by far the most commonly cited route of administration – with many interviewees indicating that they had not actually heard of LPPs being used in any other way. Some were aware of BZP powder being snorted. A small number of interviewees mentioned injecting, although it was believed that this mainly occurred in the South Island and was not generally common practice amongst young people:

Um there is probably a small number of people who are kind of snorting it and what I know through A&D is there's one or two who are actually injecting it. But they're probably the people who are at the extreme dependent end and that might say more about like their previous drug using. [Other health]

Dosage

Where this was discussed, most respondents indicated that they were aware of – or believed that – young people were using more than the ‘recommended’ dosage:

Um normally more than is recommended because I'm quite pleased to see that there are actually recommended amounts on them, but I'd say anywhere between probably two and six a night. [AOD]

Users were also believed to take a number of pills at one time, to increase the effect. This was also sometimes repeated before waiting to gauge the effects of LPPs already consumed:

And the other thing I notice is that they often, I guess it's some of them not being so sensible, but they won't necessarily wait for the effects and then take more. They'll just take a whole bunch of them and hope that that makes their night even better. [AOD]

Comments were made about the fact that not all products had dose information and, where this was made available, it was often in very small print, thus making it difficult to read. One interviewee spoke about the difficulty in ascertaining exact doses with powdered BZP.

Usage patterns, function of use and context and place of use

Overall, there was a feeling that most LPP use was a night time, weekend activity, associated with the dance party scene, going to clubs, and a desire to stay awake for extended periods of time. Most interviewees spoke about party pill usage taking place in social situations with friends, often (or usually) accompanied by the use of alcohol.

It was hypothesised by some interviewees that, as BZP was relatively inexpensive, young people might be using it as a stimulant in place of more expensive illegal drugs such as ecstasy. Others believed that LPP use might be associated with the use of illicit drugs, as part of a general tendency for young people to get intoxicated at weekends. There was an acknowledgement that use of LPPs formed part of broader normal youth behaviour with regard to general experimentation, which – for some – included trialling new substances:

I think in lots of cases with these things and experimental stuff it can be peer pressure, but it can be a just different kind of a norm, you know, that's introduced and others are doing it. Um I think maybe if they're in an environment where lots of experimenting with different things is a norm amongst their peers, amongst their friends. [Other health]

Yeah, yeah that's what I found was it was more around experimental use like, you know, they're tried magic mushrooms, they'd try a bit of this and bit of that. [AOD]

Other uses identified by interviewees included: for weight loss (mainly women), as a study aid, use instead of drinking to be able to drive (including “boy racers” who it was believed were using them for their stimulant properties) and use of LPPs for self-medication (e.g. for depression), although not all of these uses were associated exclusively with young people. Truck drivers were also a group identified as potentially using LPPs, although the interviewee did not stipulate if it was young people specifically.

Use of LPPs and other substances

Where the concurrent use of other substances was mentioned, alcohol was always cited, and from a wide range of interviewees – including ED and AOD specialists, and those working in education, events, and an LPP retail environment. One interviewee from an AOD background noted that users were suggesting that they could drink more alcohol when using party pills:

And again I guess it's that social thing that they kind of go out drinking, but they've taken these [party pills] as well. And they often find that with them they can actually drink more because I guess they feel that wide awake drink feeling or whatever it is - and feel like they can actually consume more when normally they'd probably come out, but it keeps them going for longer... and their tolerance may be higher than it normally would be. [AOD]

Cannabis was also mentioned, with one interviewee indicating it might be used to help the user sleep. Beyond this, interviewees did not comment much about the use of LPPs in combination with other substances.

Some respondents were specifically asked for their views on whether LPPs might act as a 'gateway drug' to the use of illicit substances. Interviewees from AOD backgrounds noted that most young people had already used alcohol and cannabis before using LPPs, which formed part of a repertoire of drug taking. However, some respondents did see the potential for a move to illicit drugs – either due to risk-taking behaviours while disinhibited on LPPs or, in the event that LPPs are banned, that this may lead users to seek other substances in their place.

One interviewee made the point that many users were people who would never consider using an illicit substance. This interviewee was concerned LPPs had possibly created a new group of drug takers – or, at least, increased the level of drug-taking events.

4.2.3 Positive and negative effects of use

Positive effects of LPP use

Positive aspects of LPP use were mostly discussed by interviewees from the perspective of individual users. One main positive outcome for users was believed to be related to the direct actions of LPPs – for example, being able to stay awake longer and the ability to extend periods of socialising. Others discussed the fact that young people liked the effects of the substance and that they provided a “*nice high*”.

Benefits were also discussed from the perspective of 'social gain' and being in a social situation with other young people.

The legal status of LPPs was seen as positive by a few interviewees. This was either due to the opportunity for users to have fun without being involved in criminal activity, or the fact that it provided an opportunity for the purity of the substances to be monitored (although it was acknowledged that this was not necessarily happening):

In other cases I have, you know, heard young people's stories around just using that and that's something that's safe, that's legal, that they can moderate and know the guidelines for using. [Other health]

Of the legality and I think yeah I mean just the stuff around purity and strength like and actually knowing what you're getting. Whereas with something which you're getting off the street you don't actually know and I think I probably need to kind of put a condition with that, which I think there's a number of manufacturers which were really clear about what's contained in what they're making. [AOD]

An AOD specialist noted that, for some of the more problematic polydrug users, a weekend that does not involve alcohol, with LPPs used instead, might be protective.

Interviewees were asked what they thought the attraction of LPPs were for young people. Common themes identified included accessibility and availability of the substances:

...most bottle shops would supply them. The convenience side, they pick up this, this and this, party pills and alcohol for the night. [Hospitality industry]

Their legal status, the ability to legally drive home after taking LPPs, and the effects of the substances, particularly with regard to extending social occasions were also mentioned:

It's legal and it's available, it's fashionable and it has a nice high and I think that's it all there. It's just easy for them, probably easier than them getting alcohol sometimes because you don't know really how carefully the retailers are sticking with the 18 and showing ID. [Drug organisation]

Negative effects of LPP use

Some interviewees were able to draw on their experience of working with LPP users when discussing this issue. Others, however, reported negative effects based on anecdotes or information gained via third parties. Where possible, this is indicated in the text.

Negative social and health effects of LPP use

A wide range of negative social and health effects of LPP use were identified in the research. It is interesting to note that many interviewees thought that LPPs were more often than not being taken with alcohol, and so it was difficult to know exactly which of the negative effects was directly attributable to LPPs. Others speculated that first time users probably used LPPs unsafely and experienced worse outcomes as a result. Direct negative consequences of LPP use mentioned by ED and interviewees working in the AOD field included lack of or inability to sleep, tiredness, anxiety, and impact on appetite.

Many interviewees commented on the ‘unpleasant’ comedown and depressed mood as a result of LPP use. Some felt that for most young people taking LPPs was ‘for fun’ and that they were not really a problem.

There was concern about the fact that stimulants (including BZP) might exacerbate pre-existing mental health problems and be dangerous for those with a history of seizures. One interviewee spoke of an increase in psychotic behaviour, which was attributed to LPPs, and another reported anecdotal evidence of this:

I mean people with, people with psychiatric disorders shouldn't take them – it worsens um, it worsens schizophrenia. It actually induced psychosis some people have never had um psychiatric problems. It precipitates anxiety attacks so that's one side of it. [ED]

However, I spoke with a psychiatrist this morning who said this BZP should be outlawed because he deals with people with serious mental illness, such as schizophrenia and they're using the BZP and becoming quite psychotic so he's got a totally different take on it and thinks we're being far too liberal with looking at controls not a legality. [Drug organisation]

The following interview extract shows that incidents of LPP-related ‘psychosis’ are sometimes being attributed to the strength of the products:

But really in the last three or four months I've been hearing much more about um people who have gone psychotic. We've had people coming in here really psychotic, you know, obviously having hallucinations and finding it quite scary. And certainly other people say, oh yeah my friend just went off. Um I do think there's been a change in the manufacture... they're much stronger than they used to be. [Other health]

Other concerns included the impact that LPP use might have on work or study, given the problems of sleep deprivation. Concerns were also raised about effects on perception which might lead to trauma through injuries, and also about general disinhibition potentially leading to risky behaviours such as unprotected sex. Again, this needs to be seen in the context of the co-use of alcohol in most cases. A small number of interviewees raised concerns that taking more than the ‘recommended’ dose could lead to toxic effects or an ‘overdose’.

At the more severe end, only a few instances of use indicative of addiction or dependence were described, and in some cases these were anecdotal or third hand knowledge. One AOD specialist commented that the comedown from the product was probably too awful for regular use to lead to dependence. However, another interviewee stated that they had seen indications of dependence, although they were unsure how widespread the problem was:

And we're beginning to see people who have become dependent on it. I really want to contact CADs and find out whether they have had, you know, what the size of the area of the problem is or have had no problem of or whatever. But certainly I've referred a couple of people to them and that's just me myself, one person. And I've had people who continue to come up here having side effects. [ED]

One interviewee indicated that the young people they were in contact with were not experiencing significant difficulties with them, aside from a general sense of “*not feeling that great*” the day after taking LPPs:

However, the group of young people that I'm working with or have contact with and who kind of relate what's happening with their peers, they would say well it's not an issue, you know, they're not experiencing particular difficulties with them, apart from, you know, the stuff about not feeling that great the next day. [Other health]

One person working with injecting drug users highlighted skin irritation and vein damage as potential negative effects for those who had injected, and highlighted a need for education around this.

Further concerns were raised about the issue of seizures, the potential for serotonin syndrome, and to what extent these products are having an effect on brain development in young people, due to the possibility of neurotoxicity and depression. In considering the potential impacts, one interviewee drew comparisons with amphetamines:

What people who have been taking amphetamines find is that after a period of chronic use they're subject to a lot of depression. I think the term they use for it is chronic excitotoxicity because when these drugs actually release more adrenalin, serotonin at nerve endings, within the brain, and those things actually in excess are actually toxic. And what's been described is that when people have stopped they have persistent depression, which is very difficult to treat, and they have memory problems as well. So my concern is that you've got an age group where, to be frank, the brain is still developing probably up to about 20, early 20s to mid 20s – that's when things sort of start to be fully established and mature. Up to then the brain's still developing and you're exposing them to these basically neurotoxins and so what is going to be the downstream effect of those psychiatrically? [ED]

There was widespread concern expressed about it being too early to see the long term effects of LPP use – including physical, psychological or societal harms. In particular, concerns were raised about the lack of information available on LPPs, and some felt anxious that a large group of young people were using these products 'blindly' in the absence of such knowledge. Furthermore, it was believed that it would be some time before any potential long term damage became apparent – and some felt uncomfortable that some significant harms could be experienced in the interim.

LPP-related presentations to health services

Not surprisingly, the most severe, acute aspects of LPP use were identified by those working in hospital emergency departments. Thus, ED participants mentioned nausea, vomiting, headaches, stomach pains, paranoia and seizures as negative aspects of LPP use:

Mostly anxiety and palpitations, stomach discomfort, nausea and vomiting and that's about it. Nobody really presents comatose. [ED]

There was a general view that many, if not most, BZP-related ED presentations were not for BZP use alone, and that patients had also consumed alcohol and potentially other (illicit) substances. When presenting at an ED service, some LPP users were being brought in by friends – these tended to be young people who were either having seizures or who had collapsed, or who were 'out of control' or in a state of panic. The majority, however, were reported to be self-referrals due to concern about symptoms

such as tachycardia, anxiety, inability to sleep and stomach pains. Relatively few young people used ambulances to access ED services.

In comparison with young people presenting with alcohol overdose and the use of other substances (e.g. gammahydroxybutyrate (GHB) presentations), one ED interviewee highlighted that numbers of LPP-related presentations were small, and the impact on resources was low:

I mean the thing with GHB is that it's such a sedative drug and so that's much more for us, much more labour intensive because a lot of those people came in deeply comatose and require intubation and intensive care. So if you look at the cost per patient it's huge versus with any of these they're coming in saying, my heart feels like it's racing or I feel a bit anxious, all of which you just give them some diazepam, which costs like two cents and within an hour they're fine and they can go home. So the cost per patient ratio is very, very different. [ED]

There was a view that many LPP-related ED presenters were “*quite regular people who are in education, gainfully employed*” and that these people were quite shocked to find LPPs had adverse effects, given a perception that as “*it's legal, these things are safe*”.

Of note is that some interviewees perceived there may be an under-reporting of illicit drug use to emergency (or other health) services, with users more comfortable disclosing use of legal substances, such as party pills. This was evident in situations where symptoms did not match the disclosed drug use:

We know that there's a big problems with methamphetamine in the community often resulting in aggression. Some of the patients that present to us at various concert events in the past couple of years have been very, very aggressive and so and their friends and bystanders say that they'd taken party pills but you can only but suspect what else is underneath. [Other health]

One interviewee involved in health services at music events noted a trend in LPP-related ‘casualties’ similar to that noted when ecstasy first appeared. At the outset, there were a number of serious presentations but, over time, numbers had decreased. They speculated that this might be due to an initial lack of knowledge of the substances amongst users, resulting in them being used ‘recklessly’. After learning from their ‘mistakes’, however, they modified their behaviour and started to use LPPs more sensibly.

....maybe this is just part of the cycle and where a population becomes exposed to something in the early part, I'm speculating here, in the early phases – the first year or so, they have little limited knowledge on how things work. They gather that knowledge and then all you start seeing is the exceptions, people who do too much or, you know, the one in 10,000 that get it wrong or um or are new users. [Other health]

Overall, from AOD services, there was a view that young people were not presenting with problems related to their LPP use, nor was it being assessed as being the primary issue with regard to their substance use. Whilst LPPs were generally part of their drug repertoire, cannabis and alcohol were considered to be the substances causing most of the problems for young AOD clients. There was also an indication that amongst this

poly-substance misuse subgroup, these young people would take what was available, and that often included legal party pills:

I don't think we've ever had one referral for the person with the primary problem of being party pills. But of course we do see a lot of party pill use with other kind of things. Interviewer: So their reason for presenting is not generally related to the use of that substance? No. Almost exclusively not to do with their reason for presenting for party pills and their main problem, if you like, then that's their presenting problem but then you do an assessment and you work out what their main issues are. And again, although the party pills maybe, you know, maybe significant and some times as significant as their problems with cannabis or alcohol or other substances. So what you're seeing, with respect to party pills, when you're seeing problems with party pills you're seeing that as just one of many poly-substance abuse problems [AOD]

Anecdotally, one interviewee from a hospital background indicated that their local AOD service was seeing an increase in people using LPPs (they did not specify young people), although their primary presenting problem continued to be other substances²³. Other AOD interviewees saw LPP use as part of general substance use amongst a group with underlying problems who might be 'self medicating' to escape from their problems, or be indulging in dangerous experimentation, which had led to them seeking AOD treatment:

And they tend to be the ones that we see in the service and they tend to have substance abuse problems and party pills kind of add to that. But what we don't see here is malfunctioning, high functioning young people who started taking party pills and end up with a problem. [AOD]

The use of help-lines was occurring, but one interviewee reported that this was mainly used by professionals seeking information, although there were reports of intoxication through LPP overuse in combination with alcohol. Other calls related to requests for clarification on the legal status of LPPs.

4.2.4 Perceptions of party pills

Views of the advertising and marketing of LPPs

The advertising and marketing of LPP products was viewed by most interviewees as being specifically targeted at a youth market. The extreme visibility of much of this via posters and billboards, in or outside retail outlets (particularly dairies), was believed to have contributed to general public concern about the availability of the products, and an impression that much of the marketing was "crude", and 'pushing' products onto a youth market.

When we were looking last year I was quite surprised how open it was and how sort of like pushing towards, you know, young people to taking them. And in fact one of the nursing staff brought me in a big leaflet that his daughter, his 16 year old daughter had got from a dairy, that was promoting the use of a group of the tablets. And um, you know, it was a glossy brochure. [AOD]

²³ This increase could, however, be due to a raised awareness of BZP amongst clinicians, with some now proactively asking about it rather than waiting for clients to disclose use.

Specific comments were made about the promotion of products with regard to making the substances look “cool”, and with little or no reference to the fact that they could be harmful in any way.

With obvious allusions to illicit substances such as ecstasy, it was perceived that LPPs were being promoted as a legal and safe alternative to their illegal counterparts:

The look of it yeah, yeah, the look and the messages so, you know, some of the marketing describes the product as class A pills or A class, so there's strong connection between class A, illegal substances and these A class pills. [Drug organisation]

The unregulated nature of marketing was of concern to some who spoke about special offers on price, and marketing (often linked to ‘herbal’ claims²⁴) which implied that LPPs are akin to vitamins and dietary supplements.

LPPs as a harm reduction intervention

Claims by the LPP industry that LPPs had initially been developed to help people come off methamphetamine were generally well known amongst interviewees. However, findings from the research suggest that there are mixed feelings towards the concept of LPPs as a ‘harm reduction’ intervention. Many interviewees believed that the majority of users were using LPPs for the ‘high’ and were not necessarily people who used illicit drugs. The idea that those who wanted to come off harder drugs such as methamphetamine would be attracted to LPPs was not taken too seriously, particularly in light of the lack of evidence to support this. Whilst some acknowledged that this may have been the original intention for the substances, it was recognised that – given the level of sales in New Zealand – this was clearly not the only way in which the substances were being used:

In my view, and this is the view that's discussed in the media, is that there aren't millions and millions of drug users in this country and so these pills clearly aren't being used only by people in recovery as a substitute. [Drug organisation]

The research revealed little evidence or anecdotal reports that methamphetamine users were successfully using LPPs in place of this drug, particularly with regard to young people:

As a youth service we don't have, we don't see a lot of people who are addicted to P. We're seeing a little bit more, but we're really looking at 5%. Okay and also P's so expensive that young people don't use it, if they use it they use it just for a wee while. That said we haven't seen any effect along the lines of that is perpetuated by the marketing. We've never seen anyone who's been saved by BZP or hasn't used P because BZP was available. [AOD]

A slightly different aspect of harm reduction was noted by two interviewees, both of whom commented that there had been a recent fall in GHB-related casualties. It was

²⁴ Some interviewees noted that herbal claims appeared to be being made less prolifically than previously.

speculated that this might be due to a change in the law around GHB²⁵, the availability of LPPs, or a combination of both:

We can say that GHB has gone down, but as I said before we don't know if that's legislation, which it probably is, or if that's because there's an alternative available. [ED]

I guess the other event that we look at is dance parties and we used to have lots of problems with GHB dance parties in particular, some problems with ecstasy, but we're getting less problems these days and I think probably that audience have shifted across to legal party pills. [Other health]

Some held the view that, rather than acting as a harm reduction intervention, LPPs might in fact be 'recruiting' young people into using substances who might never have done so in the past, and thus creating a new generation of drug takers.

Questions were also raised about a future society where LPP substances were used by a wide range of individuals as part of 'everyday' activities. Concerns were highlighted with regard to how that would impact on society itself:

I think they're sociologically there could be an issue with people who wouldn't normally take pills to change their state of mind who are taking, you know, so we've got this big group of people. If the industry's to be believed that there are millions of these products being sold then we do have a large group of people who are taking these pills to change their state of mind. And sociologically that's an interesting thing – is this creating a new drug culture, is this changing our drug and our recreational culture. And I think that is an interesting question. I wouldn't say that, that that new cohort of people who are taking drugs are then going to want to find stronger highs by smoking P. But I think it's an interesting in itself that there is a new group of people or a large group of people, usually, you know, they probably get pissed all the time but they are also taking pills. [Drug organisation]

Views of LPP legislation

Some interviewees commented positively on the current legislation around LPPs, including having an age restriction on supply. The following comment reflects one view that a less 'punitive' approach was a constructive move, and that waiting for evidence before legislating was considered a positive strategy by some:

Um so I think the fact that um it's being reviewed ah is wise and um I think it's a very reasonable, rather than taking a heavy handed approach, my feeling is taking more of a well let's actually get some evidence and find out what these substances do um is a reasonable, reasonable, reasonable approach to start with. [ED]

Another interviewee believed that the current approach – i.e. a perception that the government was waiting until evidence of harm became apparent before considering changes – was not appropriate, and that the safety of the products should firstly be proven. They asserted that an outright ban was the only responsible approach, and would in fact be 'simpler' than placing restrictions on sales. It was acknowledged, however, that this could be difficult given the fact that the LPP industry was already well established.

²⁵ GHB was classified as a controlled substance Class B1 under the Misuse of Drugs Act 1975 in May 2002.

In addition, a ban was not supported by a number of interviewees – and some had concerns that banning LPPs could result in an increase in other drug use:

That's our fear about if you ban it, if you ban the pills and people want the high and they're used to getting the high and if you're going to buy illegal drugs you wouldn't buy legal BZP – you'd buy illegal ecstasy or something. So I think those are issues but there's no evidence to say this. Um and it's not an outright fear that this big cohort will work its way up the drug ladder um but that there could be issues around increased drug use generally. [Drug organisation]

A number of research participants were concerned about the inherent messages conveyed in making a substance of this nature legal. They believed young people viewed these products as safe and harmless because of this, and often did not even think of them as 'drugs':

And when you say to people um are you using drugs you know, they say oh my friend's using drugs you know it means cannabis- it doesn't mean BZP. So actually, well that's my feeling, my interpretation anyway. Drugs still means cannabis. But I think more because I don't think people see party pills as drugs, they see it like alcohol and alcohol's not a drug and party pills is just having fun, it's not really a drug. [Other health]

Regardless of their views on the 2005 legislative changes, interviewees believed that effective policing of the age-related restrictions would be a challenge, and that young people would find ways to 'get around' these laws to gain access to the products. There was concern from one interviewee that new non BZP-based products would be brought onto the market, and that the legislative framework would be too slow to deal with them.

Whilst the Industry "Code of Practice" (STANZ, 2005) was acknowledged as generally positive, there was some cynicism around its purpose, with respect to it being a way of "legitimising themselves". There was a view that any regulation of the industry needed to be controlled independently of the LPP industry and that self-regulation was not the way forward:

Oh look I think that's um very sensible that there's some, there's regulation at some level. I would be quite concerned if it was left up just to the um the manufacturers or the businesses to self-regulate a substance that's, there's not enough information about it really. [ED]

Interviewees suggested that a high level of regulation was required regarding quality control on the manufacturing and packaging of LPPs. Proposed legislation included restrictions on the amount of BZP per pill, standards for manufacturing and labelling, a legal maximum amount per dosage unit, and a maximum pack size:

It must be of a smaller dose and there must be a maximum amount that you can buy. In the UK you can only buy 12 Paracetamol at a time. There is no way you can go into a supermarket and buy any more than 12 Paracetamol and this is, you know, a beneficial drug. [ED]

It's about kind of the labelling, it's about a maximum dose and it's around um ensuring that people are socially responsible who choose to sell them. [Other health]

The retail side of the industry was viewed as variable. Some retailers were considered relatively responsible with regard to enforcing the R18 rule, and the provision of information around safe use. However, more than one interviewee remarked on the

association between one manufacturer/retailer in the industry and criminal and gang-related groups.

Restricting marketing and product promotion from certain outlets was suggested, in particular limiting this to only R18 premises, as there were concerns about younger people being influenced by current marketing.

Perceptions of young people's knowledge of safe use

Interviewees made a number of comments about their perceptions of users' knowledge of LPPs, whether they believed users wanted more information, and whether or not young people made use of the information that was currently available.

There were mixed views on young people's level of knowledge about LPPs, particularly in relation to safe use of the products. One interviewee from a youth worker background felt the level of knowledge might be greater than expected, as young people learned a great deal from observing one another:

I think they're actually not as bad as we think. I think they've got some quite good, almost intuitive stuff. Um they observe each other and they really know the effect of alcohol in each other um and they really observe people's reactions to different things. And I think they have quite a good level of knowledge. They couldn't quantify it and if you asked them to write an essay on it there's no way they could do that but they could tell you about it. [Other health]

Some interviewees held the view that many young people had poor knowledge, especially around safe use, use of LPPs with other drugs, and what they might expect experientially from using the products. In particular, whilst it was believed that their knowledge of the legal status of LPPs was good, and they often knew how much BZP was in a pill, they may not be informed as to the likely effects of overuse or associated risks:

You know these things they're legal, they're available, people don't appear to be aware of the risks inherent with them, there's not a lot of information about them. [Other health]

Whilst this limited knowledge was often attributed to a lack of available information on LPP products, some interviewees acknowledged that providing more pamphlets and brochures would not necessarily result in behaviour change, and that such information might be more widely accessed by professionals rather than users, particularly if it was not presented in a user-friendly format. It was suggested by some interviewees that not all young people will read or access information, even when it is provided:

We've actually just got one pamphlet. I'm not sure where it's from. And I mean some kids don't read pamphlets, which I fully understand. [AOD]

Despite concerns about the current general lack of knowledge and information available, one interviewee commented that there was a more sophisticated level of knowledge this year, compared to a year ago. In addition, it was felt that the availability of information had improved:

Now it appears this year ah at [name of music festival] we had people coming and asking us specific questions so rather than asking what they did at previous years, you know, what is this charge, how much can I take? They are saying I've taken two of these and two of these and two of these – can I mix some of these? [Other health]

A raft of suggestions was made regarding interventions needed to inform users. Most of these were from a harm reduction perspective, and some required legislative intervention. Interventions in general included having appropriate information in shops, having health warnings on packages which were large enough to be seen and read, and a belief that this information should be independent of the LPP industry:

Okay the young people that I work with the students come and said, hey we know this stuff is going on, we know friends are using party pills, we're kind of worried because there isn't information out there, there's no independent information and that was kind of always my issue as well. [AOD]

Whilst it was acknowledged that there was some information available through AOD services, it was felt that this needed to be made more widely available for youth workers. Information specifically for emergency departments was also highlighted as necessary, particularly with regard to how to specifically manage issues of BZP toxicity.

And there's no specific guidelines regarding management; there's just general guidelines and from the say the toxins website regarding how to manage this class of substance. [ED]

One interviewee suggested that many young people do not have access to support, education resources and information, and in the context of health promotion, open discussion about these products would be beneficial:

I think my concern is particularly for young people ... who might use party pills and who may try other things as well and don't have access to support, education, information, resources, you know, of how to protect themselves and how to be safe or, you know, the actual effects of the implications so they make a really informed decision. So I think that's my concern and that would be what I'd like to see happen more really is more education and health promotion, information, support, resources, people talking about these things so that young people, you know, make yeah, do know the risks and can talk openly about why they might want to use it as well the benefits for them so it's actually really open communication and young people learn through that process and then can make informed decisions for themselves. [Other health]

4.2.5 Industry views

This section outlines the responses from three participants from different sections of the LPP industry who were interviewed as part of the 'key informant' stage of the research. Their views have been presented separately from other interviewees as their experience, expertise and perceptions come from a unique perspective (i.e. from a background of potential commercial interests). The results presented here need to be interpreted with that in mind.

An overview of the LPP industry was provided by interviewees, and the subject of LPP products and their development as a substitution therapy for those on methamphetamine was raised, including the fact that evidence of this existed in the

form of feedback from satisfied consumers. It was confirmed, however, that the use of these products by people who were not users of methamphetamine far outweighed any use by those attempting to withdraw from the drug. There was also recognition that some LPP users drank alcohol whilst using LPPs despite warnings on packets, and that some LPPs users used illicit substances.

Interviewees maintained that the majority of those involved in the industry were acting responsibly, not least in order to maintain the industry's existence. One interviewee expressed frustration that LPPs were newsworthy only when an individual ended up in ED, and that industry members were not given an opportunity to show that they acted responsibly. Comments were, however, made about 'rogue traders' who were perceived to be operating outside of the LPP industry's voluntary code of conduct (STANZ, 2005):

They were locally made, just getting empty capsules off somewhere and just filling them up with as much BZP as would fit in them and (filling) them cheap and, cheap and nasty. [Industry]

With regard to purchase behaviour by young people, industry interviewees indicated that there was not a great degree of brand loyalty and that products had a 'life cycle':

Yeah, each of them re-branded and we recognised a while ago that consumers wouldn't – today's consumers in that sort of, in that bracket, they don't necessarily hang on to a brand and stay loyal to it. [Industry]

It was stated that recently prices had started to fall due to competition within the industry. One view held was that we may have seen a peak in the use of BZP products as the 'high' was not that good (particularly compared to some illicit substances) and the comedown period following LPP use made it unpalatable for some.

There was a view that users were starting to learn to use LPPs in a way which caused fewer negative effects, although one person indicated that it was likely that younger people may not be taking notice of any warnings or advice. One interviewee indicated that they always provided information to users on safe use:

...also too whenever we talk to the customers we make sure we give out our wee brochure, which says get into it and not out of it and has all the responsibility codes – no drinking and don't take them if you've got heart problems, high blood pressure, etc, etc [Industry]

However, they also recognised that a New Zealand binge culture might impact on the way in which young people were using these substances.

Potential legal interventions suggested by industry representatives

The following is a list of some of the suggested legal interventions, as discussed by LPP industry interviewees. Many of these were put forward with the intention of reducing harm from the use of LPPs.

- Restrict access to R18 retailers (although some concerns about liquor stores)

so like if the Health Department have got, for example if they had like our type or store, which is an adult type store, you know, maybe sex stores, which seem to do quite a good trade and then maybe liquor stores, which are R18 anyway. You have and I have a wee bit of an issue with liquor stores doing it in some respects as well. [Industry]

- Remove from dairies and similar general retail outlets

I'm firmly in the belief that places such as dairies there's no way that they should be selling them....I believe that it shouldn't be out, it's like having um beer or wine in a dairy. I think just the responsibility of an average dairy owner isn't high enough that they can actually say, where's your ID. It also spreads the marketing too far and wide for it to be regulated. [Industry]

- Tablet not capsule

Yeah but preferably a pill form than a capsule form because capsules can be tampered with. [Industry]

- Restrict the amount of BZP per dosage unit and number per pack

Um well some of them are making the pills a lot stronger so like we've said 200 mgs per pill so that people don't get too silly um and some of them are putting 500 mgs or larger amounts or whatever amounts they are um and not really caring about that too much, you know. [Industry]

And so they do whatever they want so in that respect that's where I think the limiting of the amount in pills and the amount in packs um will really benefit because it will, you know, they're not going into a shop and spend \$40 and end up with a couple of thousand milligrams of BZP – they're only going to be able to get a set amount and then um, you know, if they take the whole lot they're not going to come to strife. Child proof packaging. [Industry]

- Provision of accurate information

Yeah, we've tried to put safety messages out like New Years Eve with all the media, we just sit there and tell them, chose what you're going to do tonight – alcohol or party pills, don't do both or you'll end up with a rotten hangover, you're not a hero if you take more, less is more, you know, it's better if you can make it still with a clear without getting fried. We tried to put these messages out there but we've only got the media to do it and they usually like to pick something else up and run with it unless it's Christmas day (or something). [Industry]

- Restriction of opening hours of retail outlets to times when young children are not likely to be present

They shouldn't be available twenty-four hours, I think it's a bit silly because I mean, if you want to get them out of the reach of children then surely you should say don't sell them between eight and ten and between two and four when kids are walking past, home from school you know. Only sell them at night when people who are grownups are out partying. [Industry]

- Production and manufacture only in quality controlled environments and according to Good Manufacturing Practice codes

But also too I think they seriously need to look at um where the pills are made. Um what worries me is that um you know it's reasonably easy to import BZP and you know the old internet these days you can get a packet down and you can get a kilogram in for a couple of thousand dollars. Now it's easy enough to get the gelatin caps and all of a sudden you've got yourself, you know, you can make one milligram pills of BZP pretty much in your hand basin and there's nothing at this moment to stop that happening. [Industry]

4.3 Comparing and contrasting key informant and young people data

The following is a summary of the key similarities and difference in findings across the two sets of data.

- General patterns of LPP use, as identified by young people, were not dissimilar to that which some KIs had observed through their work. Most LPP use was a social activity undertaken with friends, and occurring in the evenings/weekends. Many young people were taking more than the ‘recommended’ dose, and using the substances in conjunction with other drugs (particularly alcohol). Whilst no young people interviewed had used LPPs intravenously, findings from KI interviews suggest that there may be small pockets injecting, although this was not specifically highlighted as a young people’s issue.
- KIs from the AOD sector reported that many young people had already tried alcohol and cannabis before using LPPs, which formed part of a repertoire of drug taking. This was also apparent amongst the sample of young people, although some stated that they had not tried any illicit substances before (or after) using LPPs. Some KIs were concerned that LPPs may create a new generation of drug takers who might otherwise have never tried illicit substances. It was beyond the scope of the study to identify whether this was the case amongst the young people interviewed.
- Interviews with KIs identified a wide range of concerns around LPP use, including the vast array of negative side-effects also described by some young people (e.g. depression during the ‘comedown’ period). On the whole, however, there were not significant concerns raised about the immediate impacts of the substances for young people, although it did appear that concerns were greater amongst KIs, compared to young people. By comparison, many young people appeared comfortable using LPPs despite a fairly limited knowledge of the substances and their effects. KIs believed that the legal status appears to confer some degree of social acceptability and perceived level of safety onto the substance, an issue confirmed by many young people. Whilst KIs were concerned about the (unknown) longer term impacts of the substances, this was mentioned less often by users.
- Those working directly with young people in AOD settings stated that there had been a very limited number of young people accessing services with regard to BZP use specifically. Young people interviewed also reported that neither they, nor anyone they knew, had accessed help with regard to their use of LPPs. However, the high-functioning nature of the sample should be recognised when considering this finding.
- The strength of LPP products is believed to vary considerably, as reported by both KIs and young people. Some KIs believed this was influencing apparent regional

variations in consequences of use, although this had not been confirmed. Young people were also reporting that use of different products (with varying strengths) sometimes resulted in more negative short-term impacts.

- Some KIs identified a reduction in the level of LPP-related presentations over the last year. Whilst it was not clear what the reasons for this were, it was hypothesised that increased knowledge amongst young people on the effects and safer use of the substances may be having an impact. Several young people themselves stated that they had reduced the frequency or dose of LPPs they typically used, due to concerns over the negative side-effects of the substances (particularly the ‘comedown’). In addition, young people clearly had developed patterns of use based on ‘trial and error’ and claimed to have strategies in place for minimising negative impacts. Some KIs also believed that the unpleasant ‘after-effects’ would prevent the development of dependence on the substance, through minimising repeated use, although a minority of KIs claimed to have seen evidence of dependence amongst young people.
- Both young people and KIs expressed concern about the widespread availability of LPPs, and questioned the appropriateness of dairies as sales outlets given their potential to introduce the substances to younger (under age) users. There were also mixed views on whether or not legal party pills should be sold in liquor outlets given the apparent conflict with safety messages which stated that LPPs should not be used in combination with alcohol.

5.0 LIMITATIONS

In reading this report, it is essential to consider some of the limitations and potential biases and confounders which this type of methodology incurs.

- As already outlined earlier in this report, this is a qualitative study; thus it does not comprise a representative sample of young people, nor is it designed to provide results which are generalisable to the whole youth population. It provides an in-depth representation of the views, knowledge and behaviours of a small group of young people at one point in time. Cause and effect cannot be attributed, although associations can be hypothesised. The reliability of the findings (from both the youth and KI data) is assured through data saturation²⁶ and, in the writing of the results, we have also indicated where data are presented as the view of all, the majority or only a minority of respondents, for the purposes of transparency and to facilitate interpretation.
- As many young people were interviewed in ‘friendship’ pairs or groups, it is likely that they would have experienced taking LPPs together, and have many other shared experiences; there is a need, therefore, to interpret results with caution, due to this potential clustering effect.
- With regard to young people, our recruitment strategy was chosen based on current best, but extremely limited, advice on conducting studies of this nature. However, this might have introduced a bias into the final sample in that those unhappy to discuss their views with others would not take part.
- There is a potential that this type of research might attract those with more extreme views to take part, and thus bias the results - for example, those who want to make sure party pills stay legal, those who have experienced negative effects, and so on.
- It is also possible that young people interested in substance use and the effects of different substances may be more like to participate, and may be more knowledgeable and more ‘sophisticated’ in their drug use.
- The researchers and advisors to the study considered that the young people in the study were ‘high functioning’ in that most were studying or employed, and were articulate, punctual and reliable with respect to participation in the study
- Our final sample of young people was weighted towards New Zealand European respondents. Whilst a broad base of recruitment strategies was undertaken, very few non-New Zealand European young people responded. In consideration of the results from Wilkins and colleagues (Wilkins, Girling, Sweetsur, Huckle, &

²⁶ Data saturation (also known as ‘theoretical saturation’) has been described as “*the point in data collection and analysis when new information produces little or no change to the codebook*” (Guest, Bunce, & Johnson, 2006)

Huakau, 2006) that a significant proportion of users are Māori, we would have hoped to recruit more Māori young people for their views.

- The study recruited young people mainly from Auckland, although a small number were also recruited from Christchurch and Nelson. No rural areas were included. As we do not know if there are regional or geographically-oriented differences in patterns of use relating to LPPs, we cannot comment on whether this Auckland bias has had any impact on the results.
- In order to access a broad range of views and experiences, a wide array of KIs was sought in the research – including those directly working with young people and others with a broader perspective on LPP-related issues. Consequently, some of the people interviewed did not have direct exposure to young people or were not directly involved with LPPs through their work. Additionally, those interviewed from the health and education sector had varying personal experience of LPP users. Therefore, the level of importance and weight associated with some of the KI views needs to be tempered by this consideration.
- The views of KIs are those of individuals, and whilst data saturation was reached on some issues – for example, a majority (but not everyone) view that LPP use in young people was not currently causing serious concern with respect to health, social functioning and substance use in general – other issues were commented on by only some KIs.
- Finally, this study has looked at LPPs and the context in which they are currently used. It has not included any detailed consideration of the impact of LPP from a biological perspective, based on what is currently known (very little) or can be hypothesised from the available literature regarding mechanism of action of BZP and TFMPP. Any thorough consideration of potential impact of LPP use would need to explore these issues, and more besides.

6.0 DISCUSSION

This study is one of the first studies to explore the use of LPPs amongst young people in New Zealand. The qualitative methodology has permitted in-depth exploration of patterns and context of use, the effects of the substances, and the perceptions and attitudes of a group of young people with regard to their use of these products.

This research has revealed LPPs fulfilling a range of roles for young people, and being used in a range of different situations. The research has identified evidence to support some of the anecdotes that linked the use of these substances with the dance party culture for the purpose of additional energy, 'staying power' and enhancement of socialisation which appears to occur with LPP use. More 'functional' use has also been confirmed, for example LPPs' role as a study aid, and fulfilling a weight loss function.

Patterns of LPP use appear to be similar to usual patterns of substance use amongst young people in this age range. For example, experimentation is commonplace, much learning occurs through 'trial and error', and levels of use fluctuate throughout the year. Other research has identified that it is common for young recreational drug users to mix a range of both legal and illegal substances in their 'drug repertoire', including across the course of a single drug-taking event (Aldridge, Parker, & Measham, 1999; Duff, 2005; Parker, 2005; Wilkins, Girling, Sweetsur, Huckle, & Huakau, 2006). It is also interesting to note the similarities in patterns of LPP use with those adopted by users of MDMA (ecstasy), including prolonged dancing in crowded conditions, the use of other substances to manage the 'comedown' period, and negative effects such as mood fluctuations, lethargy and depression in the period after taking the drug (Curran, 2000; Parrott, 2001). Ecstasy has also been used to assist with weight loss, predominantly by females (Boys, Marsden, & Strang, 2001).

The perceived benefits of LPP use, such as increased energy, enhanced sociability and increased confidence have been reported in other studies of illegal party drug use (Boys, Marsden, & Strang, 2001; White, Breen, & Degenhardt, 2003). Using drugs in this way, particularly with regard to enhanced socialisation and increased confidence, is in keeping with normal youth development and identity formation, whereby young people may seek to test boundaries and overcome feelings of awkwardness and self-consciousness.

The study has provided evidence that some young people appear to be participating in a range of risky behaviours with regard to LPPs. For example, mixing substances, driving whilst under the influence of LPPs, and taking larger numbers of LPPs than recommended. These risky behaviours are not specific to LPPs, and mimic behaviours seen amongst those who consume alcohol (and other drugs). It is possible, however, that in the case of LPPs, the acute outcomes are less serious and the amount of risk less severe. Certainly, when comparing use of health services and emergency services for alcohol-related problems and LPP-related problems, LPP users make little use of

these (Wilkins, Girling, Sweetsur, Huckle, & Huakau, 2006), as compared with those who drink alcohol (Everitt & Jones, 2002). Indeed our study found limited evidence of significant harms having been experienced as a result of such activities. This may be an artefact of the make-up of our sample, being a relatively 'high-functioning' group. However, in the main, this finding is supported by feedback from the 'key informant' interviewees. Of note, is the fact that not all the KIs working in hospital emergency departments reported serious issues with LPP users and associated negative health effects. Recent media reports also suggest that there has been a reduction in the level of BZP-related presentations to emergency departments in one hospital at least (Richards, 2006).

The research has identified a range of negative effects reported by LPP users. Whilst this study was qualitative in nature and cannot be extrapolated to the general population, many of these have been reported in the research elsewhere (Wilkins, Girling, Sweetsur, Huckle, & Huakau, 2006). Some of the negative effects identified, such as tachycardia, can almost certainly be attributed to the pharmacological effects of BZP. However, many others (e.g. tiredness and lethargy) may be partly due to BZP's effect on sleep, combined with the effect of strenuous dancing for extended periods. In addition, the immediate and delayed combined physical and psychological effects of large quantities of alcohol combined with LPPs are unknown. Clearly, further investigation is necessary to identify which effects specifically relate to the chemicals in LPPs, and which are a by-product of associated behaviour and activities.

Sleep 'debt' and deprivation has been linked with road traffic accidents (Hargreaves, 2000), gastrointestinal problems (Rajaratnam & Arendt, 2001) and has been shown to reduce performance levels to those similar to the legal limits for safe driving (Williamson & Feyer, 2000). Given the potential for sleep loss to impair learning and memory processes (Curcio, Ferrara, & De Gennaro, 2006) this also raises concerns about the continued use of LPPs as 'study aids' and the potential impact on educational achievements. Additional concerns relate to younger users and the possible effects of regular sleep deprivation on development and mood, with young people reporting less control over their moods following sleep loss (Dahl & Lewin, 2002).

Although not something which had caused harm to participants in this study, driving and drug taking is an important issue. A review of the literature on drug use and driving identified conflicting results from laboratory studies which have explored the relationship between the use of stimulants and driving performance (Kelly, Darke, & Ross, 2004). Other studies (undertaken in Australia) have identified somewhat 'permissive' attitudes towards drug driving, with reasons for undertaking this behaviour due to convenience and a lack of transport options (Duff & Rowland, 2006). These are also likely to be pertinent issues for young people in New Zealand.

The general lack of *serious* health issues reported by users is important and this finding was corroborated in much of the data gathered from 'key informants'. Again, this needs to be looked at in the context of the sample with regard to it mostly being an apparently 'high functioning' group of young people, which may be a product of the recruitment strategy or may in fact reflect the nature of young LPP users overall. Indeed, analysis of drug-taking attitudes and behaviour amongst young people in both Australia and the United Kingdom has identified a shift away from drug use as a 'deviant' behaviour (Duff, 2003; Parker, 2005; Parker, Aldridge, & Measham, 1998), and highlighted the emergence of more responsible, 'well-adjusted' recreational drug takers who are well integrated into mainstream society and use substances in a somewhat controlled and strategic fashion (Duff, 2005; Parker, Aldridge, & Measham, 1998).

The fact that young people do not appear to be presenting at AOD services in relation to their LPP use needs to be considered in the context of normal youth behaviour in this regard – i.e. that such services might not be seen as an appropriate avenue for help seeking, even when help might be needed. In addition, given evidence of LPPs sometimes not being considered as a 'drug' (due to their legal status and widespread accessibility) it may be that young people are accessing help or assistance from other sources (e.g. GPs). It is also worth reiterating the strong views expressed amongst some KIs that it is too soon to make a judgement call on LPPs overall, given the level of uncertainty that exists with regard to the long term effects of these products. What this research has highlighted is that – amongst the majority of people we interviewed – LPPs were not perceived as a significant problem *at this stage* although there were widespread concerns about the potential unknown long-term consequences. However, given the qualitative nature of this study, these findings cannot be considered as generalisable.

The young people interviewed as part of this current study were generally aware that certain behaviours may increase risks associated with LPP use. They were also generally well informed with regard to 'harm reduction' messages relating to safer LPP use, particularly in relation to not mixing these products with alcohol. It appears that many of the suggested ways of reducing harm (e.g. such as keeping hydrated, not mixing with other substances, etc.) have been extrapolated either from what is known about safer use of 'party drugs' such as ecstasy, or from the safer dancing culture. Whilst to date none are based on, or supported by, LPP-specific evidence, the fact that such 'commonsense' messages are generally known by young people should be considered positively.

This finding is, however, tempered by the fact that, some of this information is ignored, as evident in the apparently commonly undertaken practices of mixing LPPs with alcohol and exceeding 'recommended' doses. Such behaviour may be linked to the legal status of these products. Indeed, findings indicate that, for some, this is

equated with the substances being 'safe', with the subsequent implication that there is reduced need for 'responsible' drug-taking behaviour. It is worth bearing in mind that it is often considered 'normal' for young people to refer to peers – rather than more 'authoritative' sources – for information and guidance on issues such as substance use, and also to experiment with exceeding levels of use generally recommended as safe. In considering whether there is a need for better education around LPP use, it is worth highlighting that, in becoming adults, it is developmentally appropriate for young people to practice adult behaviours, both positive and negative. Most young people will experiment at some level with some or all of these adult behaviours, regardless of how much education or information they are provided with. Indeed this study has further reinforced that young people are more likely to seek information from their friends or learn from their own experiences, rather than consulting packaging or leaflets for information on safe use, appropriate dosages etc.

Of note is the apparent reduced frequency of use and reduced dosage being used by young people themselves, with no reports of difficulties being experienced with regard to this. This pattern implies that LPP use may be a phase of experimentation, a hypothesis that has also been discussed in the media by individuals working in the health sector (Richards, 2006). This theory requires further exploration.

We found very little evidence to support claims that LPPs act as a device for helping people stop using illicit drugs, particularly methamphetamine; none of the young people had used LPPs to help them withdraw from this substance, or knew anyone who had. However, some young people indicated that they consumed less alcohol when they were taking LPPs or had reduced the number of drinking occasions since taking LPPs. The possibility that LPP use (on its own) might result in a more 'controlled' intoxication (thereby less risky behaviour) needs to be further explored. By comparison, some of the young people reported that they were using LPPs after consuming large quantities of alcohol as a perceived 'sobering' device; this is a more concerning finding, given the potential for the products to mask actual levels of intoxication and increase the risk of young people engaging in unsafe behaviour.

This study was not designed to investigate whether the use of LPPs was either leading young people onto using other drugs (gateway 'in') or stopping them using illicit substances (gateway 'out'). Nevertheless, findings indicate that, given the perceived inferior 'high' and the unpleasant comedown, LPPs were generally not considered a viable substitute for ecstasy amongst many young people already using ecstasy. LPPs were, however, sometimes used in conjunction with ecstasy to enhance the drug-taking experience, or as a replacement for ecstasy when the drug was either unavailable or unaffordable. LPP products were also being used by some people who were deterred by the illegal and, in some cases, perceived 'riskier' status of ecstasy. Therefore, it may be worthwhile considering whether availability of LPPs is increasing levels of drug-taking events, rather than substituting for illicit drug use.

This idea is further enhanced by the results from our study that some young people were using LPPs who had never used illegal drugs before.

Since this study commenced, the number and range of LPP products has expanded, and there is anecdotal evidence to suggest that the potency of some brands has increased steadily over time (Perrott, 2005; Wilkins, Girling, Sweetsur, Huckle, & Huakau, 2006). Both young people and KIs believed that new products were being introduced to the market with increasing levels of BZP. In addition, an exploration of product contents carried out by the research team indicates that neither the ingredients, nor the quantity of ingredients is always made clear on the label. These factors may be making it difficult for young people to gauge an 'appropriate' dosage, particularly given that many are not following 'recommendations' contained on product labels. Furthermore, products containing new combinations and compounds are emerging. Of note, are the recently released 'BZP and TFMPP-free' products which contain caffeine and Kava extract and are being promoted for their lack of 'comedown' associated with other LPPs. This is further evidence of the dynamic and changing LPP market.

The study findings indicated a 'divided' LPP retail market, with some retailers considered more reputable than others. Others, however, are noted for less scrupulous tactics, such as selling pills with high levels of BZP, and allowing young people to negotiate prices paid for LPP products. Moreover, the research has revealed that a wide range of sales strategies are being adopted, including home delivery services and party pills being sold through makeshift outlets. Extended opening hours of some retail stores may pose a risk to some young people, particularly when they are purchasing LPPs when intoxicated and when their ability to make safer (and informed) decisions may be impaired.

Important issues have been raised with regard to the current regulation of LPPs, and its effectiveness in limiting access and supply to minors. There appears to be some variance in the vigilance of different retailers in abiding by the legislation. As highlighted above, delivery services open up the access of LPPs to an even wider (youth) audience. These, and internet sales, may also make it difficult to police the industry with regard to the R18 restrictions. Both key informants and young people commented negatively on the availability of LPPs from general outlets such as dairies, where they are visible to much younger people and possibly more readily available without an age check. There was wide support expressed in this study, and other research (Wilkins, Girling, Sweetsur, Huckle, & Huakau, 2006), with regard to them being removed from these types of outlets. Other issues which were highlighted as requiring further regulation included the contents and labelling of products, as well as the manufacturing process.

Whilst this study has revealed important learning regarding young people's use of legal party pills, there are some notable limitations to the data. Of particular note is

the lack of representation of the experiences of Māori and Pacific youth with regard to these substances. The views and experiences of young people living in rural areas may also have introduced a different perspective.

7.0 RESEARCH QUESTIONS GENERATED BY THIS STUDY

A key objective of this study was to generate hypotheses or research questions for future research. The results, therefore, lead us to highlight some potential research questions:

- What impact does the legal status of a substance have on perceptions of the drug, and subsequent behaviour?
- How do young people assess information on safe use of a substance – i.e. why is some information viewed credibly, and some discarded?
- Do young people go through a phase of experimentation with LPPs, followed by a reduction of use once the ‘novelty’ has worn off?
- Why do some young people appear to suffer more adverse affects from LPPs compared to their similarly aged counterparts?
- What impact does availability and accessibility of LPPs have on propensity to use?
- What is the relationship between alcohol use and LPPs?
- Are LPPs increasing levels of drug-taking episodes, rather than replacing illicit drug use?
- How do patterns and context of use, reasons for using, and positive and negative impacts of the substances differ amongst older age groups?

8.0 RECOMMENDATIONS

In addition to the research questions raised above, this research has highlighted a number of issues which require further exploration with regard to young people's use of LPPs. In particular, we recommend that the following are investigated further:

- the accuracy of labelling of LPP products, with regard to levels of named ingredients;
- the safety of new products emerging on the market;
- the potentially confounding effects of a range of other factors, when considering the impacts of LPPs. This includes the use of other substances, sleep loss, and associated activities such as prolonged periods of dancing;
- patterns, context of use, positive and negative impacts of LPPs amongst Māori and Pacific youth, and of young people who live in rural areas;
- the potential development of information resources on safe use of LPPs for a wide range of end users, including young people, older users and their families. These would need to be accessible and acceptable to young people;
- the development of clinical and educational resources for individuals working in a wide range of sectors – including primary care, AOD treatment, youth health, and education;
- the role and efficacy of retailers in imparting information on safe use of LPPs. Some retailers were considered a credible source of information by young people, but it is not known how well-informed or ethical this group are when providing guidance.

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