Workplace Drug Testing: Debates,
Discussions, Deterrents and Deliberations

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May 2016
CRIM489
Introduction

“In our time, the symbol of state intrusion into the private life is the mandatory urine test” (Hitchens, 2004:53). Drug tests detect metabolites, which are traces of substances that remain in an individual’s system (White, 2003). Drug tests are used in workplaces to identify employees who have used licit and illicit drugs. In 2004, Air New Zealand won a case in the Employment Court for the right to drug test their workers (Gillespie, 2012). Since this victory, New Zealand has witnessed a significant increase in the number of workplaces that conduct employee drug testing.

Workplace drug testing (WDT) is a controversial practice, therefore it necessitates a comprehensive analysis to determine its use and effectiveness. This research sought to determine whether WDT deters drug use, and explored employee perceptions of the practice. A wide array of academic literature which acknowledges a range of opposing debates on WDT is identified and discussed. A questionnaire design was employed, containing three sections ascertaining employee demographics, and their experiences and perceptions of WDT. Results and discussion sections discuss core findings in relation to key themes and the proposed research questions. This research also seeks to determine whether WDT can be justified in terms of the current evidence base.

Literature Review

Since the introduction of workplace drug testing by the then United States President Ronald Reagan, countries internationally have adopted similar strategies as a response to a range of different issues (Frone, 2013; Pidd & Roche, 2014). Countries employ various underpinning rationale for WDT. The United States implements testing so drug users are able to be identified, terminated from their workplace and refused employment, theoretically acting as a deterrent (Pidd & Roche, 2014). Alternatively, countries such as Canada, Australia, the United Kingdom and New Zealand utilise drug testing to reduce risk and improve safety within the workplace (Pidd & Roche, 2014). This literature review will seek to identify and discuss a comprehensive range of academic research that exists on WDT, and acknowledge a range of opposing debates. The review will recognise conflicting moral and ethical issues, complications with the tests themselves, research into whether WDT deters drug use and reduces accidents, and identify employee perceptions.

Drug tests detect metabolites. Metabolites are traces of substances that have been consumed and remain within a person’s system (White, 2003). Drug tests are used within workplaces to detect the presence of both illegal and legal drugs. It is argued that illegal and some legal drugs can impair workplace performance and increase the risk of accident and/or injury (Current, 2002; Frone, 2013; Institute of Environmental Science and Research (ESR), 2008). Current (2002), maintains that drug use can cause a myriad of issues in the workplace, such as an increase in mistakes, poor judgement, reduced productivity and carelessness. Employees can be tested in a range of contexts, including pre-employment, post-accident, on reasonable
grounds or suspicion, random and follow up testing (ESR, 2008; Frone, 2013). Most New Zealand companies have a ‘three pronged’ approach to dealing with staff members who have tested positive on a drug test. Depending on specific circumstances, employees could be warned, offered a rehabilitation program or dismissed (Teixerira, 2013).

Employers can test blood, urine, hair, saliva and breath (Drug Testing, n.d.). Each of these requires a different type of test. For example a urine test necessitates a specifically designed cup, whereas an oral test requires a swab. The prices vary between tests and brands, depending on the quantity bought at once, and the quality that workplaces are prepared to invest in. Urine tests can cost NZ$401.00 for twenty five tests if purchased in bulk, or approximately NZ$16.00 per individual test (Sober Check, n.d.). However, once the cost of time, shipping and additional facilities have been factored in, a single urine test can cost between NZ$45-95.00 (Teixerira, 2013). If an individual tests positive, the tests are required to be sent away for laboratory confirmation, adding on extra costs. Different tests are designed to detect a range of different drugs. The ‘Medix Pro Split Drug Cup’ tests urine for tetrahydrocannabinol (THC), cocaine, amphetamines, methamphetamine, benzodiazepines and opiates (Sober Check, n.d.). The Sober Check (n.d.) brand of drug tests also provides oral swabs testing for THC, amphetamines, methamphetamines, cocaine, opiates and alcohol. Securetec is a brand of drug tests that are used throughout New Zealand workplaces (Personal Communication, 2016). Their products can test up to seven drugs depending on cost including THC, amphetamines, methamphetamine, ecstasy, benzodiazepines, cocaine and opiates (Securetec, n.d.). This illustrates that while most products generally test for the same drugs, there are slight differences, particularly ones testing for legal drugs such as alcohol. Frone (2013) examines WDT in detail, focussing primarily on the US, while briefly acknowledging other countries, including New Zealand.

WDT began in New Zealand in the 1990s. This was somewhat in response to a number of US multinational companies exerting pressure on their global subsidiaries to drug test in their workplaces (Frone, 2013). The testing initially began in the forestry, fishing/shipping, mining and aluminium industries, growing in 2003 to dairy, transportation, road and construction (Nolan, 2008). By 2005, a majority of meat industries had also introduced testing (Nolan, 2008). Harr and Spell (2007) acknowledge that due to New Zealand’s small population of approximately four million people, and with 96% of New Zealand owned companies having fewer than twenty employees, the prevalence of WDT should be low. However, in 2004 Air New Zealand won a case in the Employment Court for the right to test their workers (Gillespie, 2012). Since this victory, a sharp increase of WDT in New Zealand workplaces has been witnessed (Gillespie, 2012). Less than 5,000 WDT specimens were analysed by the Institute of Environmental Science and Research in June 1998 (Nolan, 2008). This increased to almost 25,000 in June 2005, and Nolan (2008) predicted that this number would continue to increase.

This increase is also attributable to other New Zealand trends and influences. Nolan (2008) argues the first is the increase in the use and misuse of both legal and illegal drugs. It is specified by Nolan (2008), that 30% of all post-accident tests combined with reasonable grounds testing between 2005-2007 have been positive, as have 8-9% of pre-employment tests and 10-13% of
random tests. Nolan (2008) identifies the latter influence to be the Health and Safety Act (1992) and its Amendment (2002). This legislation holds employers accountable to ensure employee safety while at work. The plethora of legislation available to explore justification both for and against WDT also identifies a number of moral and ethical issues surrounding the topic.

Some academics argue that WDT is justified in terms of privacy when it comes to protecting others (Cranford, 1998). Some argue that there is rarely justification to override an individual’s right to privacy (DesJardins & Duska, 1987; Rowan, 2000). Cranford (1998) argues that drug testing is justified and is not a violation of an employee’s privacy. He argues that the workplace is a superlative arena to deal with wider social issues that result in drug use, and that this begins with drug testing. However, it is also acknowledged that “some employees perform below the norm in an unimpaired state, and other employees might conceivably perform above the norm in an impaired state” (Cranford, 1998: 1810). While Cranford (1998) also argues that drug testing is justified in terms of privacy, he concedes that drugs are not necessarily the cause of workplace harms.

In 1987, DesJardins and Duska presented research arguing that employers rarely have the right to override an employee’s right to privacy through WDT. Their central tenet is based on the idea that the relationship between an employee and employer is an economic one, and that the employee’s life outside of this economic relationship is private. The two main arguments discussed by DesJardins and Duska (1987) claim that drug use affects job performance, and that drug use can cause harm both to the user and others in the workplace. It is contended that an employer does not own the right to a maximum level of performance. As long as employees maintain an acceptable level of performance, an employer should be content; awareness of drug use is irrelevant (DesJardins & Duska, 1987). However, inability to fulfil a contract adequately still does not warrant drug testing. With respect to the knowledge of drug use by employees to minimize the risk of harm, they argue that even if this knowledge is justifiable, it should be limited to employees in safety sensitive positions (DesJardins and Duska, 1987). Safety sensitive positions are those that involve the safety of both the employee and others around them. Often this is where an employee handles equipment or chemicals that could be dangerous if not used correctly, with caution and full attention, such as jobs in forestry or meat processing plants (ESR, 2008).

Thirteen years later, Rowan (2000) argues that the scope of employees for whom it may be justifiable to drug test is smaller than DesJardins and Duska (1987) initially suspected. He argues that employee’s right to privacy should be upheld against WDT. Urine is the property of whom it came from, and is in a complete breach of privacy for it to be entitled to someone else. Rowan (2000) argues that other personal information can be found within urine, which again would breach privacy if it were to be used by an employer. This could include a range of sexually transmitted diseases or other health related information, such as pregnancy (WebMD, 2005-16). Rowan (2000) also contends that urinalysis is an example of an employer monitoring an employee outside of work, again, a breach of privacy. It is acknowledged that the safety stance is the most justifiable for breaching an employee’s privacy (Rowan, 2000). Rowan’s (2000) conclusion is similar to that of DesJardins and Duska’s (1987), in that safety is crucial,
but it only justifies testing those who are in both positions to harm others and come under reasonable suspicion of use.

New Zealand employers are expected to consider a range of legislation when implementing WDT strategies. While there is no specific law that addresses this in New Zealand, it is informed by a combination of case law and Acts (Gillespie, 2012). ESR (2008) maintains that WDT adheres to this legislation. The Human Rights Act 1993 requires employees to develop and implement a WDT strategy that is non-discriminatory. This means it should not test on the basis of age, race or gender (ESR, 2008). The Health and Safety at Work Act 2015 requires every employer to eliminate all risks to ensure the safety of employees in their workplace. It is also mandatory for employers to consider the Privacy Act 1992 and the New Zealand Bill of Rights Act 1990 (ESR, 2008). However, others maintain that these laws should prevent the implementation of WDT. For example, the Bill of Rights Act protects an individual’s right to refuse medical treatment and be secure from unreasonable search and seizures (Gillespie, 2012). The Hemp Store (2000-2016) claims that random testing “contravenes the Bill of Rights and the Privacy Act, and violates the natural justice of presumption of innocence”.

Not only is there contentious debate surrounding the right to drug test and the privacy of employee’s, there are significant issues with the drug tests themselves, and the subsequent complications. A central argument to this discussion is voiced throughout academic research, where WDT can only detect the presence of a drug in an individual’s system, not determine the extent of potential abuse or impairment (Brown, Bain & Freeman, 2008; Comer 1994; Drug Testing, n.d.; Gillespie, 2012 & The Hemp Store 2000-2016). In combination with a number of other issues, this argument was acknowledged by Comer in 1994. She recognized a multitude of flaws in WDT even then. She contends that WDT cannot determine an individual’s ability to perform in the workplace, and that “poor job performance may be related to certain social and/or individual factors in the lives of drug users, rather than drug usage itself” (Comer, 1994: 260). Eating certain foods or taking over-the-counter medication can result in false positives, as can laboratory error. Employees are also able to evade the detection of drug use through urine substitutes, or detoxifying products (Comer, 1994).

Despite these issues raised by Comer in 1994, WDT has subsequently burgeoned. French, Roebuck & Kebreau (2004) acknowledge the substantial budgets that exist in workplaces for drug testing. This was confirmed through a discussion with an employee (Personal Communication, 2016), who stated that their workplace, which is one of twenty New Zealand branches, budget $35,000 per year on drug testing. Cranford (1998) explained earlier how different drugs can have a range of effects on different people. This is the result of factors including frequency of use, other drugs used, general tolerance, age, weight, health and wellbeing and metabolism (Drug Testing, n.d.). Buchanan, cited in Gillespie (2012), continues to develop Comer’s (1994) research. He explains how poppy seeds and pain killer medication containing codeine have been recognised as substances that can result in a positive test for opiates (Gillespie, 2012).
Employees are able to employ a range of strategies to evade a positive WDT result, as Comer (1994) identified. There are a number of websites and shops that provide employees with an alternative to discontinuing their drug use. ‘Always Test Clean’ (n.d.), provides a detoxifying agent that eliminates the presence of a drug in an individual’s body, while purportedly replacing it with nutrients to keep the body healthy. ‘Detox for Less’ (2000-2015), advertises synthetic urine that is sold with a heating pad to keep the urine at body temperature. A ‘Wizclear’ can be purchased from ‘Perfect Urine’ (2005-2016) to feign the action of urinating under the inspection of the tester. The New Zealand based Hemp Store (2000-2016) claim they are the leading provider for a number of international drug test solution companies. They display over sixteen different products to evade testing positive on a drug test, and a guide is provided to determine the product best suited for each individual’s needs (The Hemp Store, 2000-2016).

The prevalence of WDT is based on the premise that it deters drug use, and reduces workplace accidents. There are a number of studies that support this statement (Borack, 1998; French, Roebuck & Kebeau, 2004; Gerber & Yacoubian, 2002). However, a number of studies have concluded that either this is incorrect, or it does not have a strong or convincing evidence base (Cashman, Ruotsalainen, Greiner, Beirne, & Verbeek, 2009; IIDTW, 2004; Pidd & Roche, 2014). French et al., (2004) analysed data from 15,000 US households to determine whether WDT programmes influenced the probability that employees would use drugs. They determined that while these programmes have produced the desired effect by deterring some potential drug users, this comes at a high cost of drug testing expenses, employee turnover and recruitment efforts (French et al., 2004). Gerber & Yacoubian (2002) investigated the efficacy of WDT in reducing injury rates in the construction industry. They concluded that the construction industry in the US experienced a 51% reduction in workplace incidents within two years of implementation. Borack (1998) found similar results in the US Navy, estimating that approximately 56.5% of drug use is deterred by WDT.

In contrast, Pidd & Roche (2014) undertook a systematic literature view to determine whether WDT deters drug use and reduces accidents. While the selected literature that was reviewed provided mixed results, Pidd & Roche (2014: 164) found that the overall methodology was weak, and that “the expansion of workplace drug testing initiatives is not supported by the current evidence base”. Cashman et.al., (2009), assumed a study of the effects of WDT in occupational driving. Again they critique that there is limited evidence throughout the literature reviewed. The Independent Inquiry into Drug Testing at Work (IIDTW, 2004) was formed in 2002 to examine any evidence pertinent to WDT in the United Kingdom. They concluded that the link between drugs and accidents in the workplace is inconclusive, and that there is no clear evidence to suggest WDT deters drug use (IIDTW, 2004). IIDTW (2004) argue that there are other factors that could have more significant impacts on workplace safety; including work related stress, health problems, disproportionate workloads and poor working conditions.

Much of the literature investigates the right to test employees and the issues surrounding this. There is little existing research that examines employee perceptions of WDT. Comer (1994); Brown, Bain & Freeman (2008); and Kitterlin & Moll (2013), are some of the few that have examined WDT from this perspective. Brown et al., (2008) argue that the effectiveness of WDT
policies relies significantly on how employees respond to them. They provided 147 volunteers from an Australian agricultural plant with a two-part questionnaire. The first section required demographic information, while the second section took the form of a Likert attitudinal and effectiveness scale. While Brown et al., (2008) admitted that employing the method of questioning employee perceptions has both advantages and disadvantages, employees generally conceded that a safer workplace could be achieved through other alternative initiatives. Kitterlin & Moll (2013), conducted a similar study using a Likert attitudinal scale to assess employee responses to WDT in the restaurant industry. Their results were mixed, with employees both agreeing and disagree with WDT. Kitterlin & Moll (2013) acknowledge that their research has contributed to an increasing body of conflicting WDT research.

This WDT literature review has identified a number of questions, issues and conflicting results. It has also highlighted gaps of knowledge within this body of literature. There is information available regarding New Zealand WDT legislation and history (Frone, 2013; Gillespie, 2012; Harr & Spell, 2007; Nolan, 2008). However, there appears to be a dearth of work examining the effectiveness of WDT in deterring drug use and reducing accidents in New Zealand, nor have the perceptions of employee’s been considered. This is a significant gap considering the prevalence of WDT in New Zealand, and the lack of an international evidence base. WDT is a controversial and contemporary issue, and as this review illustrates, WDT is incredibly multifaceted. Accordingly, this issue and knowledge gap will be pursued in the ensuing research.

Methods and Methodology

This research took the form of a questionnaire design to answer the following questions:
- Does workplace drug testing deter employee drug use?
- How do employees perceive drug testing in the workplace?

Two aims have been developed to aid in guiding this research:
- To explore the wide spectrum of debates pertinent to workplace drug testing
- To explore these debates with specific reference to employee perceptions

The target group were males and females over the age of 18, who have been drug tested in a workplace. There were no other prerequisites. Participants were invited to partake in an anonymous voluntary questionnaire. This questionnaire received 144 responses. This was achieved by distributing it through a number of ‘blackboard’ pages on the Victoria University of Wellington website. ‘Blackboard’ is a webpage for Victoria University that students have an individual login. Lecturers distribute course information, notifications and grades via Blackboard. Three lecturers were approached and two approved for the questionnaire to be posted on their respective CRIM325 and CRIM326 class pages. These were both 300 level courses, which ensured that the students would be in their third year at University, therefore more likely to be over the age of 18. The link was also posted on my personal Facebook page. A number of Facebook ‘friends’ shared this link from their personal pages, resulting in people other than my Facebook ‘friends’ being able to view the link. Due to the nature of an
anonymous questionnaire there was no follow up with participants. However, my contact
details were provided on the questionnaire for participants who wished to contact me regarding
the subsequent results of the overall research.

The questionnaire was designed on ‘Qualtrics’. Qualtrics is an online tool to aid in creating
surveys. A questionnaire was designed using the Qualtrics software comprising three sections.
To view the questionnaire, see Appendix A. The first section requested information regarding
a number of demographic variables, the second questioned the context surrounding the testing,
and the third section took the form of a Likert attitudinal and perceptions scale. The majority
of questions in Sections A and B were closed. However, to limit the possibility of respondents
choosing an answer because there was none other available, five questions gave participants
the opportunity to ‘please specify’ and provide additional information. The variables
ascertained in section A included age, gender and ethnicity. A question was provided to give
participants who had not been drug tested in a workplace the opportunity to exit the
questionnaire.

Section B contained a number of multi-choice questions to determine some context
surrounding employee experiences before questioning their perceptions. Information was
obtained about their employment status when tested (fulltime, part time, seasonal or other), the
context of the test itself (pre-employment, random, reasonable grounds/suspicion, post-
accident or post treatment programme) and the type of tests the participant was tested with
(urinalysis, oral swab, blood test, hair sample or other). Additional items included whether the
participant had ever failed a workplace drug test (yes/no), whether the participant was aware
of the drugs they were being tested for (yes/no), if they had ever passed a test they thought they
would fail (yes/no), or failed a drug test they thought they should pass (yes/no). It continued to
question whether the participant had ever been aware of someone under the influence of drugs
and/or alcohol while at work (yes/no) and were they drug tested (yes/no/do not know). Finally,
it asked whether the participant had ever had an accident in their workplace (yes/no), whether
they were drug tested after this incident (yes/no/have not had an accident), and what the result
of this drug test was (positive/negative/have not had an accident/was not drug tested after the
accident).

The questions in Section B were designed and implemented to provide some context
surrounding workplace drug testing. They begin to address some of the debates surrounding
workplace drug testing. They begin to explore the possible technological limitations of drug
tests, and the types of tests that these limitations may apply to. The questions regarding post-
accident testing also seek to develop arguments surrounding this controversial issue of whether
drug use increases the risk of accidents in the workplace.

Section C includes 18 Likert attitudinal scale questions. Participants were asked to read the
statement and then select to what extent they agreed or disagreed with that statement (strongly
disagree/somewhat disagree/neither agree nor disagree/somewhat agree/strongly agree).
Examples of this section include “drug testing invades my rights and privacy”, “drug testing
makes my workplace safer”, “if a colleague is under the influence of drugs and/or alcohol they
will be detected and tested” and “drug testing in my workplace has stopped me from using drugs”. For a complete list of the attitudinal questions, please see Section C of the questionnaire in Appendix A.

The attitudinal questions were designed to answer the second research question “how do employees perceive drug testing in the workplace”. The first statements question whether the participant’s job is dangerous and/or boring. Some workplaces that conduct drug testing do so because their employees are working in safety-sensitive positions (Institute of Environmental Science and Research Services, 2008). These statements will explore whether employees working in safety sensitive positions form the majority of workplaces that drug test. There are four statements that question to what extent the participant agrees or disagrees with workplace drug testing, and whether employees believe it is an invasion of rights and privacy. The argument surrounding whether respondents believe workplace drug testing is in violation of human rights and privacy will be able to be discussed further through analysing the responses to these questions.

Two statements were designed to establish whether employees believe that workplace drug testing improves safety and increases productivity in the workplace. These statements will seek to determine whether arguments for workplace drug testing such as increased safety and increased productivity, warrant merit. It will also contribute to the argument regarding the level of productivity that employers are entitled to from their employees. Five additional statements ascertain employee perceptions regarding their colleague’s use of drugs while at work, and whether this use is likely to be detected by supervisors or management. Again, these questions pertain to the productivity argument; whether employers are able to recognise employees under the influence of drugs while at work. The final two statements seek to determine whether workplace drug testing has deterred drug use, which directly addresses the first research question, ‘does workplace drug testing deter drug use.

Questionnaires have been recognised as an “invaluable source of data” (Gilbert, 2008: 183) in exploring perceptions and attitudes. The exploratory research design of a questionnaire with three sections, including 18 Likert attitudinal scale questions, was selected for a number of reasons. Self-completion surveys enable the researcher to access a large number of people who are widely geographically dispersed in an efficient and inexpensive manner. The anonymity of the questionnaire enables participants to answer questions honestly, as they are “more likely to exhibit social desirability bias when an interviewer is present” (Bryman, 2012: 234). It was also designed to be as convenient as possible, with respondents being able to complete the questionnaire at their own pace, in their own time. For a controversial practice such as workplace drug testing, the selected method proved to be extremely effective. Its purpose was to gain a ‘broad brush’ span of workplace drug testing from the employees themselves, while exploring some of the issues and debates raised in the review of relevant literature. The design of this research provides a platform on which further research could be conducted.

The use of a Likert attitudinal and perceptions scale has a number of advantages. They are relatively easy to read and understand for participants, as they are a widely used method of
survey collection (LaMarca, 2011; McLeod, 2008). With a range of options being available, participants do not have to take an exact stand on a particular question, again making answering these questions easier. However, Likert scales do produce a number of limitations that must be considered when analysing the data and ascertaining the validity of results. While the scale may present a range of answers that can also cater for indecisive or neutral attitudes of participants, it is limited to five to six options. Subsequently, it may not accurately measure the true attitudes of participants, and be more likely to give a generalised picture. There are also a number of bias’s participants may experience when completing the Likert scale. The first is the central tendency bias, where participants may be more inclined to respond ‘somewhat agree’, ‘somewhat disagree’ or ‘neither agree nor disagree’ to avoid choosing the more extreme option on the scale (Smith & Roodt, 2003). The second is the acquiescence bias, where participants may be more likely to answer a question to satisfy the person who has produced the research. The third is the social desirability bias. This occurs when a participant may choose answers that may be more socially favourable at the time, as opposed to answering honestly (McLeod, 2008).

Further limitations must be considered when analysing the results. Lengthy discussion ensued regarding how to distribute the questionnaire. It was originally thought that a separate group would be created on Facebook which people would be added to, with the opportunity to leave the questionnaire at any stage. The reason for this was to protect the researchers’ personal details available on Facebook. The Victoria University of Wellington Ethics Committee suggested that this method of recruitment may be perceived as coercion through adding personal friends to this group. This idea was reconsidered, so that the link to the questionnaire would be posted through the researchers’ personal page. The researchers’ Facebook ‘friends’ were able to see the link without being added individually to a group asking them to participate. To reduce the probability of all participants being ‘friends’ with the researcher on Facebook, a number of ‘friends’ shared the link from their personal pages with people that the researcher was not associated with. This limitation was further addressed with the questionnaire being distributed through the CRIM325 and CRIM326 class pages, ensuring that not all of the participants were ‘friends’ of the researcher.

In retrospect, the questions presented in the questionnaire could have been refined further. If worded slightly differently, a number of questions could have provided additional information to contribute to existing debates and the subsequent results of the questionnaire. For example, questions were included asking whether participants had experienced an accident in the workplace, whether they had been drug tested after this accident, and what the result of the drug test was. Many workplaces require that any accidents or even near misses must be reported to a supervisor immediately, to prevent it occurring again. To ensure that staff had knowledge of the accidents and the opportunity to drug test, the question should have included whether the accident was reported to a supervisor or other staff. There must also be acknowledgement of the fact that workplaces who conduct drug testing as a pre-employment measure may dissuade people who use drugs from applying in the first place. This may see potential employees seeking employment where drug testing is not a requirement for the job.
Consequently, participants who completed the questionnaire may have been more likely to select the job as they were certain they would pass a drug test.

Qualtrics groups and presents the data in a clear and reliable manner in order to analyse the responses. The data was analysed with specific reference to the two research questions; ‘does workplace drug testing detect drug use’, and ‘how do employees perceive drug testing in the workplace’. As aforementioned, specific attitudinal statements were included to answer the first question, while the context surrounding the drug tests and the entire attitudinal section (Section C) were designed to address the second question. The perceptions question will also be analysed through the identification of three key debates used to argue both for and against workplace drug testing. These are safety, privacy and productivity. The ensuing results section will identify the results that are most pertinent to the two research questions, with reference to the three key debates that have been identified.

Results

144 people participated in the questionnaire, with 109 fully completed responses. The characteristics of the participants were requested in the demographics section of the questionnaire, this included age, gender and ethnicity. The majority of participants were between the ages of 21-25, with 76.76% of all respondents being between the ages of 18-25.

Table 1: Age groups of participants in percentage and number

<table>
<thead>
<tr>
<th>Age</th>
<th>%</th>
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<tr>
<td>18-20</td>
<td>28.17%</td>
<td>40</td>
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<tr>
<td>21-25</td>
<td>48.59%</td>
<td>69</td>
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<tr>
<td>26-30</td>
<td>9.86%</td>
<td>14</td>
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<td>31-35</td>
<td>1.41%</td>
<td>2</td>
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<tr>
<td>36-40</td>
<td>1.41%</td>
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<td>41-45</td>
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<td>7</td>
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<tr>
<td>46-50</td>
<td>0.70%</td>
<td>1</td>
</tr>
<tr>
<td>51-55</td>
<td>3.52%</td>
<td>5</td>
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<tr>
<td>56-60</td>
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<td>1</td>
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<tr>
<td>61+</td>
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<td>1</td>
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<tr>
<td>Total</td>
<td>100%</td>
<td>142</td>
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The majority of participants were female at 67.61%, while males comprised the remaining 32.39%. New Zealand European was the most dominant ethnicity at 77.62%, with Maori, Pacific Island and Other respectively following as illustrated in Graph 1.
The nine ‘other’ responses were given the option to ‘please specify’. These answers were ‘Chinese’, ‘Asian’, ‘New Zealander’, ‘NZ Maori and NZ European’, ‘American’, ‘Eurasian’, ‘European’, ‘Canadian Caucasian (European)’ and ‘Niuean’.

The results of the questions included in the questionnaire pertinent to the main research questions and key themes will be described in the ensuing section. The two research questions are ‘does drug testing deter drug use’, and ‘how do employees perceive drug testing in the workplace’. The key arguments for workplace drug testing are based on the premise of safety and productivity (Pidd & Roche, 2014; Current, 2002; Cranford, 1998, & ESR, 2008), while the fundamental opposition to workplace drug testing include privacy in addition to safety and productivity (Desjardins & Duska, 1987; Rowan, 2000, & Gillespie, 2012).

Does drug testing deter drug use?

As mentioned above, the questionnaire contained three sections. Section C included the Likert perceptions and attitudinal scale. The final section of this attitudinal scale contained two statements. The first was ‘drug testing in my workplace has stopped my colleagues from using drugs’ and the second ‘drug testing in my workplace has stopped me from using drugs’. Graph 2 illustrates a comparison of the responses to these statements.
Graph 2: A comparison in percentage of participant responses to the statements ‘drug testing in my workplace has stopped my colleagues from using drugs’ and ‘drug testing in my workplace has stopped me from using drugs’

How do employees perceive drug testing in the workplace?

While this question will be explored further in the discussion, some of the results pertinent to the most controversial debates about drug testing in the workplace will follow. These debates included issues surrounding privacy, safety and productivity. To develop some perspective surrounding these debates, questions were also asked regarding the context of these drug tests. The context questions were not asked to gain knowledge of perceptions or attitudes, but more to be aware of experiences that the participants had with workplace drug testing, such as the type of the test and whether they had ever had an accident in their workplace.

Privacy

Two attitudinal statements included in the Likert attitudinal scale in Section C were relevant to the privacy debate, the first being ‘drug testing invades my rights and privacy’. The second statement referred more to the act of having a drug test; ‘giving a urine sample is humiliating/embarrassing’. The results portrayed in Graph 3 illustrates that the majority of respondents somewhat to strongly disagree that drug testing invades their privacy, and do not believe that giving a urine sample is embarrassing.
Graph 3: A comparison of percentages of participant responses to statements ‘drug testing invades my rights and privacy’ and ‘giving a urine sample is humiliating/embarrassing’

Safety

This statement read ‘drug testing makes my workplace safer’. Graph 4 illustrates that the majority of respondents somewhat to strongly agree with this statement.
Graph 4: Participant responses in percentages to the statement ‘Drug testing makes my workplace safer’

Productivity

The attitudinal scale statement pertinent to the productivity argument read ‘drug testing increases productivity in my workplace’. As exemplified in Graph 5, the greatest number of participants neither agree nor disagree with this statement.
Graph 5: Participant responses in percentages to the statement ‘Drug testing increases productivity in my workplace’

The results illustrate that the two research questions ‘does drug testing deter drug use’, and ‘how do employees perceive drug testing in the workplace’ are able to be answered. The Likert attitudinal questions in addition to the context questions in Section B ensure that the key debates of safety, productivity and privacy will be able to be explored in more detail in the following discussion.

Discussion

The purpose of this research was to determine whether WDT deters drug use, and explore debates identified in existing literature. As referred to in the results, two statements were included in the Likert attitudinal scale of the questionnaire (see Appendix A) pertaining to WDT and the deterrence of drug use. One questioned whether participants believed WDT has deterred their colleagues from using drugs, and the second whether WDT has stopped the participants themselves from using drugs. 42.20% somewhat to strongly agree that it has deterred colleagues, while 25.60% somewhat to strongly disagree. 51.38% of participants stated they did not use drugs in the first place. Consequently, it could be presumed that the remaining 48.62% have used drugs at some stage. 22.94% of participants who used drugs somewhat to strongly agree that it has deterred their personal drug use, while 15.60% somewhat to strongly disagree. This illustrates just over a 7% difference between participants who believed that workplace drug testing had deterred their drug use, and those who believed that it had not. However, the majority of respondents 42.20% (deterred colleagues) and 22.94%...
(deterred self) seek to disprove the proposed hypothesis, that WDT will not deter employee drug use. Therefore, the results illustrate there is a belief that WDT deters the use of drugs in some cases, but has limited or no effect on the use of drugs for others.

The context surrounding participant experiences with work place drug testing will be explored to develop a framework to answer the second research question, ‘how do employees perceive drug testing in the workplace?’ The most common term of work was full time at 44.92%, with seasonal following closely at 42.37%. Seasonal employment refers to employment over a specific period, often coinciding with particular seasons (FindLaw, 2016 - a). This includes meat processing, due to different types of livestock that are processed at different times of the year, and the various stages of orchard work (FindLaw, 2016 - a). Often the work available in seasonal employment are blue collar jobs, with many in safety sensitive positions. As aforementioned, safety sensitive positions are most likely to require WDT (ESR, 2008). Blue collar jobs historically referred to people who worked in trade occupations, who wear uniforms that are usually blue (Scott, n.d.). They generally perform manual labour in both skilled and unskilled positions.

The majority of participants had taken a pre-employment drug test at 81.36%, with 35.59% having experienced a random drug test, 2.54% post-accident, 0.85% reasonable grounds/suspicion, 0.85% post treatment or rehabilitation, and 0.85% other. The significance of these results will become apparent with further context. The other response was “to allow us to work on a specific companies work sight [sic]”. While it is unapparent whether their own employer drug tests them as well, it is interesting that some worksites require employees from companies they contract in to be drug tested. The most common type of test was urine at 94.92%. 2.54% were oral swabs, and the remainder were a combination of the two, with one response stating a combination of urine and a hair test. Hair testing in the workplace is uncommon, so it would be of interest to know more about the context of this specific test. Oral swabs generally detect drugs consumed within the previous 10-24 hours (Tam Wai Ming, n.d.). Therefore it could be argued that workplaces that drug test with oral swabs are more concerned with recent use, or being under the influence while at work, as opposed to recreational use. As has been established, WDT can only detect the presence of a drug in an individual’s system, not determine the extent of use or potential impairment (Brown, Bain & Freeman, 2008; Comer, 1994; Drug Testing, n.d.; Gillespie, 2012; The Hemp Store, 2000-2016). With only 2.54% of participants identifying the use of oral swabs, this suggests that workplaces are disregarding the fact that drug tests do not detect impairment, and are more concerned with identifying any illicit drug use amongst their employees.

The greater use of urinalysis over oral swabs seeks to perpetuate the bifurcation between licit and illicit drugs. Bifurcation is “to divide into two branches” (Orsman & Wattie, 2001: 103). In relation to drugs, this is the division between the licit and illicit. It is a system that promotes and normalises the use of some drugs, while criminalising and punishing the use of others, with WDT being a method of detecting and reinforcing this (Buchanan, 2015). Buchanan (2014) argues that this socially constructed bifurcation has established a new type of war, a ‘war between drugs’. He argues that this becomes a war against people who use drugs that are not
government approved (Buchanan, 2014). While Nutt, King and Phillips’ (2010) study illustrates alcohol to be the overall most harmful drug, illicit drugs are the ones that are presented as harmful and continue to be tested for in the workplace (Buchanan, 2013). WDT disseminates this oversimplified and unscientific bifurcation of drugs, while not testing for legal substances that could cause equal if not more harm. The use of urinalysis exemplifies this bifurcation in that workplaces are testing to detect the presence of an illicit drug, as opposed to detecting impairment from any drug.

Only 2.54% of all participants admitted to failing a drug test. This is a small percentage compared to Nolan’s (2008) proposed statistics. He estimated that between 2005-07, 30% of post-accident combined with reasonable grounds testing, 8-9% of pre-employment tests and 10-13% of random tests were positive (Nolan, 2008). This variance could be attributed to a number of reasons, including an increase in technology and websites that provide means to test negative on a drug test. While it could be suggested that it is due to a decrease in the prevalence of WDT, this is not the case in New Zealand, where WDT is becoming increasingly common (FindLaw, 2016 – b, & Gillespie, 2012). It could also be attributed to prospective employees who consume illicit drugs simply not applying for jobs where drug testing is required.

A majority of participants, 67.80%, stated that they were unaware of the drugs that are tested for when they completed a drug test. Explanations as to why people take a drug test without being aware of the specific substances being tested for could be speculated upon. Participants may have been certain that they would pass the test, therefore the details were perceived as irrelevant, they may not care, or they may have had an idea of the drugs they were being tested for, but could not ‘be bothered’ specifying. The remainder of participants who selected ‘yes’, were asked to specify what drugs they thought they were being tested for. A full list of the drugs people specified they were being tested for can be viewed in Appendix B, but the main responses will be discussed.

26 participants specified cannabis, THC (tetrahydrocannabinol), or another term to identify cannabis as the drug they were being tested for. 18 stated they were being tested for either amphetamines or methamphetamine, and interestingly there were five responses of alcohol or other legal drugs. Four people say they cannot remember, but they know it was made aware to them prior to the test by the employer or on a consent form. Seven participants stated that the drug tests are testing for all drugs, while one person specified that they are testing for “class a/b/c – illicit drugs”. These responses do illustrate knowledge about drug testing from almost a third of the participants. This suggests an active involvement and interest regarding drugs, drug testing and their employment rights. However, most testing is conducted to detect a range of drugs. It is acknowledged that the actual cost of testing could determine the type of tests that employers use. Therefore, it could be argued that the cost that employers are prepared to pay could determine what drugs are being tested for. The literature review illustrated that oral and urine tests are used to detect a range of different drugs (Securetec, n.d.; Sober Check, n.d). In addition to 67.80% of participants being unaware of what drugs they are being tested for, many of the participants who did specify were under the impression that tests detect just one or two
drugs. This suggests that employers are not being clear and transparent and/or not providing essential information about the drug tests prior to the employee’s being tested.

16.24% of participants revealed that they had passed a drug test they thought they should fail. The test used may not have tested for the drug that they had taken. Alternatively, the drug may have left the participants system by the time of the test, questioning the reliability of WDT. A false negative means that the drug test failed to detect a drug that was present in the sample provided (Anson, 2015). False-negatives are often attributed to the intentional manipulation of urine (Reisfield, G., Goldberger, B., & Bertholf, R, 2009; Riahi-Zanjani, 2014). Examples of this have been previously discussed, where websites sell detoxifying agents, synthetic urine and other products to aid in deceiving both the test itself and the employer (Always Test Clean, n.d.; Detox for Less, 2000-2015; Perfect Urine, 2000-2016; The Hemp Store, 2000-2016). False-negatives are also often accredited to laboratory or technological error (Comer, 1994; Gillespie, 2012; Reisfield et al., 2009). 16.24% is a significant portion of tests that have either been cheated through manipulation, human error in laboratories or technological faults of the tests themselves. The significant margin of error should be considered by employers when deciding what type of test to use, what drugs to test for, and whether to drug test at all.

No participants failed a drug test they thought they should pass. Existing literature cites false-positives to be a controversial issue (Gillespie, 2012; Reisfield et al., 2009; Riahi-Zanjani, 2014). False-positives can be triggered by over the counter or prescribed medication (Gillespie, 2012; Laino, 2010). Just one teaspoon of poppy seeds, which is less than the amount of the seeds found on a poppy seed bagel or bread roll will result in a positive test for opium, (Laino, 2010). Laino (2010), reports that new research illustrates false-positive results in 5-10% of drug tests. This is inconsistent with the current findings from this research, where none of the participants had experienced a false-positive. This could be accredited to a number of explanations. Employees may be aware of certain types of food that can trigger positive drug test results. Employees also may be instructed to disclose any prescription or over the counter medication that they have taken recently or are currently taking. It could also suggest that these particular tests were reliable and tested accurately in regards to false-positives. Previous sections illustrated that different brands and types of drug tests are designed to detect different drugs. Therefore, participants may have been unaware that the specific test they were taking was not testing for the drug that may have still been in their system. This result suggests that either employers are aware of the potential for false-positives, therefore may be taking precautions to ensure employees are aware of these triggers prior to taking a test, or the tests that participants took were not designed to detect the specific drug that may have resulted in a positive test.

The majority of participants, 61.02% stated that they have been aware of colleagues under the influence of drugs and/or alcohol while at work. This is a large portion of participants, considering that only 0.85% have been tested on the premise of reasonable grounds or suspicion. 33.05% said that these colleagues who were under the influence of drugs and/or alcohol while at work were not drug tested, while only 11.02% said that they were. It could be suggested that this defeats the purpose of reasonable grounds testing if employers are unaware
or unable to detect people under the influence, or if it is believed that they do not have reasonable grounds. It also begins to suggest that employees who are at work under the influence of drugs and/or alcohol may not be acting in a manner that is placing themselves or others at risk.

26.27% of participants revealed that they had an accident within their workplace. While the severity of these accidents is unknown, only 3.39% said they were drug tested after this accident. Out of this 3.39%, just 0.85% returned a positive test. Limited data exists regarding the number of New Zealand workplaces that conduct drug testing post-accident, however it is identified as one of the four prominent reasons for WDT in New Zealand (Drug Zero, 2016; ESR, 2008; Fowlie, 2009; Frone, 2013). The Health and Safety Act (2015) hold employers responsible for their employee’s safety while at work. The most justifiable argument for WDT is that it increases and ensures the safety of employees (DesJardins & Duska, 1987; ESR, 2008; Rowan, 2000), therefore, employees in safety sensitive positions are the most likely to be drug tested. 23.70% of participants somewhat to strongly disagree that their job is dangerous. This means that it is unlikely that these people are working in safety sensitive positions. Surprisingly, results from the attitudinal scale provide a contradictory response to the 0.85% that had a positive drug test post-accident, where 70.64% of respondents somewhat to strongly agree that WDT makes their workplace safer.

The results of this questionnaire illustrate a number of points in regard to the safety argument. As employers have a responsibility to ensure the safety of their employees while at work, WDT should in practice mean that all employees are drug tested post-accident, which this research clearly demonstrates is not the case. The second point is that only 0.85% of the drug tests conducted post-accident were positive, suggesting little correlation between drug use and accidents in the workplace. This is in support of Gmel et al.’s (2009) study which maintains that a certain level of marijuana in an individual’s system was not associated with an increase in risk of injury. These results are also similar to that of Price (2014), where no association was found between marijuana use and workplace accidents. Even though 0.85% returned a positive post-accident test, the test fails to determine the extent of the use, and illustrates that there are a number of workplaces in New Zealand that do not test employees where safety is paramount. While little correlation has been illustrated between drug use and accidents in the workplace, it is surprising that employees still believe that WDT has a great impact on their safety in the workplace. This could be the result of providing information citing safety as the main justification for WDT, without being aware of the limited correlation between the two.

Cranford (1998) argues that WDT is justified and not a breach of privacy, while Rowan (2000) and Desjardins and Duska (1987) argue that employee’s rights to privacy should be upheld against WDT. Only 23.38% of participants believe that WDT invades their rights and privacy, and just under a quarter of participants believe that giving a urine sample is humiliating/embarrassing. Earlier results illustrated that at 94.92% urine tests were the most common drug tests in workplaces. It has been suggested that privacy is compromised during a urine test when the employer is either standing outside the door while one urinates, or with the employer watching the urination. Often urinating is less of a private action for men than women, so it
could be hypothesized that men would be more comfortable providing employers with a urine sample. However, a gender breakdown of the results illustrated that 30.00% of male participants find giving a urine sample embarrassing, compared to 21.33% of females. From the results obtained in this questionnaire, it could be suggested that WDT is becoming increasingly normalised when the collection of bodily fluid for employment is accepted without question by employees. It could also suggest that employees feel they have no alternative options when faced with the choice to be employed or not.

While Current (2002) maintains that drug use can cause reduced productivity in the workplace, Desjardins and Duska (1987) argue that an employer does not have the right to a maximum level of productivity, therefore should be content unless productivity is unacceptable. Though the majority of participants neither agreed nor disagreed that WDT increases productivity in the workplace, 35.19% somewhat to strongly disagree. While the majority of people, 70.64% believe to an extent that WDT increases safety in their workplace, the responses for productivity are more evenly distributed. This suggests that many people do not believe that productivity levels are affected by drug use, and should not be cited as a justification for WDT.

The responses to the Likert attitudinal and perceptions scale (see attitudinal scale statements in Section C of Appendix A) sought to provide an answer for the second research question ‘how do employees perceive drug testing in the workplace’. The discussion has explored and analysed employee experiences of being drug tested. It was hypothesized that employees comply with drug testing as they are in need of employment and understand it is what their employers require, however overall, they will disapprove of WDT. 89.66% of participants somewhat to strongly agree that they understand why their employer conducts drug testing. This corresponds with the hypothesis. However, only 10.34% somewhat to strongly disagree with WDT, which seeks to disprove the hypothesis. This prompted an analysis of a breakdown of those who used drugs in the first place compared with those who did not. 16.98% of participants who used drugs in the first place disagreed with drug testing in the workplace, compared to 1.54% of those who did not use drugs. This suggests that participants who do not use drugs are more likely to agree with workplace drug testing. In conclusion, employees are generally aware of why their employer conducts WDT, and the majority of people agree with the process.

The Likert scale included a section questioning participants’ perceptions of colleagues and drug use (see Appendix A), and produced a number of noteworthy observations. 36.12% of participants somewhat to strongly disagree that colleagues under the influence of drug and/or alcohol while at work will be detected and tested by supervisors, while 37.04% believe they will. This suggests that supervisors may not be effectively monitoring their employees. Comparably it could suggest that employees are not acting in a manner that could be considered as endangering themselves or others. ‘Under the influence’ could also be interpreted differently by participants; it is subjective. It could mean visually intoxicated, hardly intoxicated, or the colleague could appear intoxicated, but in fact be tired or unwell. Regardless, WDT policy could be considered ineffective if employers are not implementing the policy well, or unnecessary if employees are not risking the safety of themselves or colleagues. Interestingly,
68.52% of participants believe that colleagues under the influence of drugs and/or alcohol act in a way that puts themselves or others in danger. Due to only 37.04% believing that colleagues under the influence will be detected and tested, it suggests that employers and supervisors are not observing their employees effectively.

An overwhelming 70.37% somewhat to strongly believe that employees in their workplace come to work with hangovers. A ‘hangover’ is referred to as “the unpleasant after-effects of drinking too much alcohol” (Orsman & Wattie, 2001). This response could imply that being under the influence of alcohol at work is perceived to be more acceptable than other drug being under the influence of other drugs, or it could imply that hangovers are more noticeable than intoxication from other drugs. The above majority of 70.37% also suggests that employers should be testing for alcohol and other licit drugs as opposed to illicit drugs. The bifurcation argument is exemplified in this example, where licit drugs continue to be disregarded and normalised, while illicit drugs are the ones that employers continue to test for. It would be interesting to see the pass rates if workplaces replaced their random testing for illicit drugs with alcohol testing. One third of participants somewhat to strongly agree that employees in their workplace often do not come to work because of drug and alcohol use. This is a significant portion of the participants. It could suggest that employees are aware of their tolerance with drugs and alcohol, and can determine when their state is too impaired to be able to work without endangering themselves or others. It could also suggest that WDT is ineffective, when 33.33% of employees do not come to work because of licit or illicit drugs, yet only 2.54% of all participants admitted to failing a drug test.

To conclude the discussion, a number of the key findings will be restated. Employers in New Zealand are held accountable for their employee’s safety while at work. Therefore it should be presumed that all employees should be drug tested post-accident. This research has illustrated that this does not occur, therefore discretionary liberties awarded to supervisors are not being implemented effectively. 0.85% of post-accident drug tests were positive, illustrating no significant correlation between drug use in the workplace and accidents. Drug tests only detect the presence of a drug, not impairment nor abuse; therefore it cannot be determined whether the 0.85% of positive post-accident tests were the result of an illicit substance. Despite the extremely low positive post-accident drug test results, the majority of participants continue to believe that WDT increases safety in their workplace. Compared to the safety argument, responses for productivity are more evenly distributed with participants neither agreeing nor disagreeing that WDT increases productivity in their workplace. This suggests that people do not believe that productivity levels are affected by drug use, and that it should not be cited as a justification for WDT. Interestingly, irrespective of gender, participants were not concerned with the lack of privacy awarded during the drug testing.

While 61.02% of participants have been aware of colleagues under the influence of drugs and/or alcohol while at work, only 37.04% believed that these colleagues would be detected and tested. This suggests that employers are not observing employees properly therefore not implementing policy effectively, or that employees under the influence do not act in a manner that endangers themselves or colleagues. One third of participants stated that colleagues often
do not attend work due to licit and/or illicit drug use. Despite this number, only 2.54% of participants admitted to failing a drug test. This is consistent with the above implication, that WDT is ineffective, as employers are either unable to detect and test employees under the influence, or that employees do not act in a way that puts themselves or others at risk. The discussion has illustrated key findings. The results of the questionnaire have been compared and contrasted to existing research, consequently producing a number of conclusions, additional questions and intriguing findings.

Conclusion

WDT is a controversial practice. While it is widely accepted and implemented throughout workplaces, literature illustrates conflicting moral and ethical issues and numerous opposing debates. This research sought to determine whether WDT deters drug use, and explore employee perceptions surrounding their experiences of being drug tested. A questionnaire was designed and disseminated through Qualtrics. This received 144 responses which have been analysed and discussed. The results illustrated that while the majority of participants indicated they did not use drugs in the first place, WDT deters the use of drugs in some cases, but has limited or no effect on the use of drugs for others. Safety, productivity and privacy were identified as three key themes in relevant literature and these themes were explored through the perceptions and experiences of employees who were drug tested.

This research contributed to existing debates and discussions surrounding WDT, while yielding fascinating and equally concerning results. The most significant justification for WDT has been identified as safety; it purportedly increases safety and reduces accidents in the workplace. However, results from this research have found no significant correlation between drug use in the workplace and accidents. Participants believed that there was little relationship between productivity and drug use, suggesting it could be disregarded as a justification for WDT. Interestingly, the majority of both male and female participants believed that their privacy is not invaded by the drug testing process. There was evidence that employers could be held accountable for the lack of transparency and information provided to employees regarding the nature of a drug test, and that employers are failing to detect employees under the influence in the workplace. If employers cannot effectively detect and test employees who under the influence while at work, one could question the justification of WDT. A significant portion of participants passed a drug test they felt they should fail. This contributed to existing literature that questions the reliability of drug tests. This is an important aspect of WDT, as positive tests can consequently result in a loss of employment, damage to relationships and repercussions through a subsequent limitation of employment and other career options.

A number of questions provided unexpected and perhaps concerning results. This essay has illustrated that urinalysis is the most common form of drug testing, despite the fact that it can only identify the presence of a drug, as opposed to the extent of use or potential impairment. A minority of employees report being tested with oral swabs, which detect the use of an illicit drug within the previous 24 hours. Consequently, this implies that workplaces are more concerned with identifying any illicit drug use, as opposed to detecting impairment from any
drug. The discussion highlighted the bifurcation of licit and illicit drugs that this perpetuates. The bifurcation is further exemplified by an overwhelming majority of participants who maintained that colleagues come to work with alcohol related hangovers, yet only 2.54% admitting to failing a drug test. This is in support of Buchanan (2014), who argues that this bifurcation propagates a ‘war between drugs’. Results of this study have contributed to the existing debates surrounding WDT. They illustrate the complexities within the debates surrounding the moral and ethical issues of safety, productivity and privacy. In addition to considering the ability of employers to apply the policy effectively and appropriately, the effectiveness of WDT is questioned. Key findings are comparable with those of Pidd and Roche (2014), in that the current evidence base does not provide adequate justification for WDT.
Reference List


APPENDIX A: Questionnaire

Section A

Age
18-20 21-25 26-30 31-35 36-40 41-45 46-50 51-55 56-60 61-65

Gender
Female Male Other

Ethnicity
NZ European Maori Pacific Island Other (please specify)

Have you been drug tested in a current or previous workplace?
Yes No

Section B

What is/was your term of work when you were drug tested?
Fulltime
Part time
Seasonal
Other (please specify)

What was the context of your workplace drug test?
Pre-employment
Random
Reasonable grounds/suspicion
Post-accident
Other (please specify)

What kind of test/s have you been tested with?
Urine
Oral swab (mouth)
Blood test
Other (please specify)

Have you ever failed a workplace drug test?
Yes
No

Do you know what drugs you were being tested for?
Yes (please specify)
No
Have you ever passed a drug test you thought you would fail?
Yes
No

Have you ever failed a drug test you thought you should pass?
Yes
No

Have you ever been aware of someone who you knew was under the influence of drugs and/or alcohol while at work?
Yes
No

Were they drug tested?
Yes
No
Don’t know
I haven’t been aware of anyone under the influence while at work

Have you ever had an accident in your workplace?
Yes
No

Were you drug tested after this accident?
Yes
No
I have not had an accident in my workplace

What was the result of this drug test?
Positive
Negative
I have not had an accident in my workplace
I was not drug tested after an accident

Section C

These next questions will take the form of an attitudinal scale. Please read the statement on the left hand side and then select how much you agree or disagree with each statement.
Likert Attitudinal Scale 1-5

My job is dangerous
My job is boring

I am aware of why my employer conducts drug testing
I agree with drug testing in my workplace
Drug testing invades my rights and privacy
Giving a urine sample is humiliating/embarrassing

Drug testing makes my workplace safer
Drug testing makes increases productivity in my workplace

Colleagues come to work under the influence of drugs and/or alcohol
If a colleague is under the influence of drugs and/or alcohol bosses or supervisors will detected this and test them
Colleagues under the influence of drugs and/or alcohol act in a way that puts themselves or others in danger
Employees at my workplace come to work with hangovers
Employees often do not come to work because of alcohol or drug use

Drug testing in my workplace has stopped colleagues from using drugs
Drug testing in my workplace has stopped me from using drugs
APPENDIX B: Specified answers from the question ‘do you know what drugs you were being tested for’.

Yes (please specify)

class a/b/c - illicit drugs

- cannabis, methamphetamine, LSD, opium and more
- cannabis
- Methamphetamine, Cannabis,
- Cannibis
- Cannabis, amphetamines, opioids, and others I cannot remember.
- Cocaine, Meth, Cannabis, Opiates, Heroin
- Fries
- They did not specify, but it was evident from methods it was cannabis or others that would remain in system longer
- Cocaine
- All illegal & legal
- Marijuana, BZP, Methamphetamines plus others
- THC, methamphetamines, Alcohol,
- Meth, Amphetamines, Cocaine, Benzodiazapines, Opiates, THC
- Alcohol, opiates, amphetamines, thc, etc
- THC, Opiates, Meth,
- cannabis, cocaine, amphetamines, opiates
- THC, Meth, Opiates
- Marijuana, cocaine, heroin, methamphetamine, any other synthetics etc (full panel)
- Illegal substances
- Weed
- Cannabis, amphetamines etc
- THC, METH, OPIATES

I was explained that I was being tested for a list of drugs but can't remember their names as many of them were the scientific name of the drug

Yeah they said, can't remember now though. Think it was the main ones. (Weed, Pingas, Meth, Coke)
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<td>Alcohol, illicit (marijuana etc)</td>
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<td>All illegal drugs</td>
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<td>Amphetamines, thc, others</td>
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<td>Methanphetamens, cannabis</td>
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<td>Cannabis, stimulents, alcohol</td>
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<td>Everything</td>
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<td>it was on the form but do not remember</td>
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<td>All drugs</td>
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<td>Marijuana, Amphetamines, Opiates</td>
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<tr>
<td>Cannabis, and others</td>
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<td>THC &amp; Amphetamines</td>
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