not, the home, its surrounds and the streetscape are the best guardians against B&E, because one can rarely be home enough to provide a continual presence. The method and results from this study will show that different alternatives for various B&E specific cues will affect a potential target's rating in terms of vulnerability and deterrence.

RESEARCH WITH A DECISION MAKING FOCUS

This section presents the main findings from research on burglar decision making. This leads into final two sections of the chapter. The first is a summary of the findings from past research on individual cues. The second is a discussion of the deficiencies in previous research, which establishes the need for the two studies conducted for this thesis.

The rational choice perspective suggests that the decision making process can be very limited and that often only minimal planning takes place (Hirschi, 1985; Rengert and Wasilchick, 1985; Zahm and Perrin, 1992). Cromwell, Olson and Avary (1991a; 1991b; 1993) and Cromwell (1994) found that 25% of burglars were structured in their decision making while conducting their criminal pursuits, while 75% were totally opportunistic. Cromwell et al. (1991a) suggested that out of that 75%, a proportion were even haphazard. Burglars contradicted their own B&E scenario blueprint totally, taking a great risk for a very limited gain.

The large proportion of opportunistic burglars could be explained by the work of Holzman (1982) who found in a survey of inmates of correctional facilities that three out of four recidivist burglars were employed while they conducted their burglaries. Other studies (Farrington and Lambert, 1994; Irwin, 1970; West, 1978) have found that many burglars are employed during their criminal career. Holzman argued that this would suggest that many burglars are opportunistic generalists who watch for opportunities while conducting their daily activities. Holzman believed that the professional B&E specialist is in the minority. What must be remembered is that all
crimes have different etiology and that some crimes may attract persons with proportionately low or high levels of cognitive skill.

One must also note that some drug using burglars commit their crimes under contract to their drug suppliers. When this occurs the burglar may be supplied with an address, even a time to commit the B&E and a list of what to steal. Where this is occurring nearly all of the decision making is being taken away from the perpetrator. Deusinger (1989) found that “burglary by contract was reported frequently” (p. 124).

Maguire and Bennett (1982) found that 84% of burglars displayed some planning and some skills. Bennett and Wright (1984) found that burglars in their study could be grouped into three categories: 7% opportunistic, 10% highly skilled, 76% in between. Nee and Taylor (1988) rated the burglars in their study similarly: 4% were opportunistic and spontaneous with low levels of skill, 12% were highly skilled as they conducted detailed planning and reconnaissance and the remaining 84% were in between. Maguire (1988) related similar results. He grouped burglars’ sophistication in regards to decision making under three headings: planners, those who select and inform themselves about a target well in advance; searchers, those who seek a suitable target and burgle it; and opportunists, those who are stimulated by an opportunity to steal.

Nee and Taylor (1988) found data to support the contention that three categories (highly skilled, little or no skill and in between) of burglar all select different types of targets and they all read cues from the environment in varying ways. Problems that present themselves are also tackled differently due to the different skill and planning levels of the burglars. Cromwell, Marks, Olsen and Avary (1991) found that a burglar’s decision making changed when he was working alone compared to when he was working with others. Burglars were more cautious in selecting a target when they were in a group.

Some researchers have started to conduct increasingly controlled studies of burglar decision making. Deusinger (1989) asked twenty experienced burglars to rate slides
of eighteen houses as possible B&E targets. Unknown to the research assistant conducting the test and the participant, nine of the houses were houses that had been burgled in the past, and nine had not. Results revealed that experienced burglars rated the houses that had been burgled as a more attractive target. Deusinger also tested experienced police officers and their ratings did not tally with the experienced burglars. This suggests police should learn more about how a burglar thinks in an effort to improve prevention and clear-up rates.

Some studies have found that the level of planning can be minimal, but there is still an assessment of risk against gain (Adams, 1997). Hough (1987) found low levels of skill among burglars, with a very unrefined process of target selection. Some offenders seemed to be choosing homes to burgle by a process of trial and error. Some studies (Chaiken and Chaiken, 1982; Gould, Bittner, Chanlels, Messinger, 1966; Maguire and Bennett, 1982; Peterson and Braiker, 1980; Shover, 1971; 1991) found burglars have little or no real specialisation or sophistication. However, low level skills can be sufficient as residents often make entry to targets easy for offenders (Gibbs and Shelly, cited in Shover, 1991).

With minimal planning occurring in many instances, it seems that many B&Es are highly opportunistic. Pope (1980) investigated if there was any relationship between offender characteristics and the type of burglaries that they commit. The data did not reveal any strong relationships between the two. Twenty characteristics of B&E (for example: time, day, means of entry, property stolen, alarm present, dog present) and eleven characteristics of offenders (for example age, sex, criminal record, drug use) were cross tabulated with no significant connections emerging. Similar results were found by Gramling, Forsyth and Fewell (1988) and the French Ministry of the Interior (1978). Ordinary residential B&E may be predominantly opportunistic. However, researchers argue that the more specialised the form of B&E, for example heavy machinery theft, the higher the level of specialisation and sophistication (Smith and Walmsley, 1999; Thomas, 1977).
As a counterweight to the previous researchers who believe that a major proportion of B&E is an opportunistic act with minimal planning are those who argue that much B&E is well planned. Brantingham and Brantingham (1978) and Brown and Altman (1981) suggest that criminal decision making is highly rational, following a sequential, hierarchical course from the decision to offend to the selection of a target. This approach is characterised by a cognitive decision making map or template the criminal keeps in their head as reference for future crimes. Shover (1971), Reppetto (1974), Walsh (1980) and Bennett and Wright (1984) all support the cognitive template approach.

Researchers have tried to gauge the skill level of burglars by the type of goods stolen or by the time of day when a break in occurs. Vetter and Silverman (1978) argued professionals take goods with a high resale value such as jewellery or furs. On the other hand, burglars that are more amateur may take jewellery and furs but they often take less valuable personal items. Pope (1977a; 1977b) also argued that novices are generally younger and often still at school, so they usually commit burglaries between 3pm and 6pm.

In summary, the shortcomings of the reactive criminal justice system in dealing with very prevalent crime, such as B&E has led to much effort being placed on proactive solutions. Some of this proactive focus has been on an offender's decision making before they commit an offence. The rational choice perspective is one of the leading methods of studying crime to understand offender decision making in an attempt to prevent crime occurring. Offender decision making varies along a continuum from haphazard through to well planned. Analysis of burglar decision making has resulted in findings on the effect of individual cues. The next section presents a summary of the research.
INDIVIDUAL CUES

Much of the recent research on B&E has led to the conclusion that specific cues could have varying impacts on decision making. What follows is a precis of some of the main findings concerning individual cues.

DOGS

Research findings on the deterrent effect of dogs have varied from a good deterrent for approximately 50% of a sample, down to little or no effect for an entire sample. Bennett and Wright (1984) in their notable study state that that two-thirds of their sample, “would avoid choosing a target in which they knew or suspected that there was a dog” (p. 84). Krainz (1988; 1990) found that half of the burglars he interviewed were deterred by the presence of a barking dog, regardless of breed. Rebscher (1990) conducted a study into the way burglars survey and gain entry to a target. Rebscher used photographs of possible targets to elicit the subjects’ methods. He found that 60% of subjects stated that a dog was a powerful deterrent. Nee and Taylor (1988) found that their burglars’ responses were equally split. Fifty percent stated that dogs are an effective deterrent, while 50% of subjects believed dogs were not a deterrent. Wright, Logie and Decker (1995) found the presence of a dog had a significant negative deterrent effect on burglars and control subjects. They also concluded that a beware of dog sign had no significant effect on the decisions of burglars or controls. Cromwell, Olson and Avary (1991a; 1991b; 1993), Cromwell (1994) and Wright and Decker (1994) found that dogs were a deterrent. Bennett (1990) in interviews with 168 burglars found that dogs did have a deterrent effect. Hakim and Buck (1991; 1992) conducted a survey of B&E victims over two years across three Philadelphia suburbs. They found that dogs were not much of a deterrent. Hough (1987) found that dogs offered minimal protection from B&E.
ALARMS

Many studies have found that an alarm, or the obvious signs that an alarm is installed, has a deterrent effect (Bennett, 1990; Bennett and Wright, 1984; Buck, 1989; Cromwell, 1994; Cromwell, Olson and Avary 1991; 1991b; 1993; Netherlands Ministry of Justice, 1991; Wright and Decker, 1994; Wright, Logie and Decker, 1995). Conklin and Bittner (1973) found that in residences where an alarm was installed, approximately 50% did not activate during the B&E. They found that out of the burglaries that were committed and the alarm did activate, 75% recorded no goods stolen. This compares favourably to a figure of 30% for residences burgled without an alarm. Hakim and Buck (1991; 1992), in a two year study, found that an alarm system and/or obvious signs stating an alarm is present were good deterrents. Buck, Hakim and Porat (1992) concluded that alarms were such a good deterrent that insurance companies should offer premium discounts to clients who install alarm systems. Krainz (1990) found that alarms acted as a deterrent because burglars felt threatened by a good alarm system.

In contrast to the above, Nee and Taylor (1988) found in their study that the majority of subjects (60%) stated that alarms were not a deterrent, while 40% said that they were an effective deterrent. The main problem with the rise in the utilisation of alarms as a prevention measure has been the phenomenal rise in false alarms and the problems this entails for emergency services, especially police (Cahalane, 2001; SLN, 2000).

LIGHTS, TELEVISION OR RADIO ON INSIDE A HOUSE

Signs of possible occupancy such as a television, radio or lights on inside a house have produced mixed results in terms of deterrence. Many studies have found that these cues have minimal deterrent effect. Hakim and Buck (1991; 1992) found that interior lighting was an effective deterrent. Scarr (1973) and Maguire (1982) found that clues that signal a lack of occupancy were highly attractive and influential.
Bennett and Wright (1984) found occupany of marginal deterrence to burglars. Waller and Okihiro (1978) and Chappel (1968) found occupany unimportant. Nee and Taylor (1988) asked the burglars in their study if occupany was important as a deterrent. Fifty-two percent stated that it was very important, while only 36% were conditionally deterred, and 12% actually preferred occupation as there was more chance of valuables such as cash, jewellery, credit cards and cheque books.

A CAR IN THE DRIVEWAY

A car in a driveway has been found to be a deterrent (Bennett and Wright, 1984) because it signals to a burglar that a house may be occupied. Wright, Logie and Decker (1995) determined that a car in a driveway had a deterrent effect on the decision making of burglars but not control subjects. Hakim and Buck (1991; 1992), Hough (1987) and Rebscher (1990) all ascertained that a car in a driveway was an effective deterrent.

LEVEL OF AFFLUENCE AND INSIDE INFORMATION

Many studies (Bennett and Wright, 1984) have found that cues that signify affluence or wealth were highly regarded by subjects. However, one significant study (Wright, Logie and Decker, 1995) did not find cues that signify affluence as important. In Taylor and Nee (1988) and Wright and Decker's (1994) studies targets with signs of wealth such as a well kept garden were more attractive to burglars. Hough (1987) states that the exterior appearance of affluence of a target was a strong predictor of attractiveness. However, poor homes were burgled only marginally less than middle class homes. Rebscher (1990) concluded that the most often stated reason for choosing a target was overt statements of wealth. The obvious appearance of wealth increased the attractiveness of a target.

Unlike the previous studies, Wright, Logie and Decker (1995) determined that signs of affluence had no significant effect on the decisions of burglars or control subjects.
Affluence and resident absence can also be determined by an offender gaining some inside information either directly or indirectly. In a study by Wright and Decker (1994) one fifth of the subjects, who were burglars, chose to burgle the homes of persons they knew. Budd (1999) found that 17% of burglaries involved offenders casually known to the victim and 34% well known to the victim.

LOCKS, DOORS AND WINDOWS

Findings concerning target hardening of doors and windows vary from those who believe they are a good deterrent to those who argue that good locks only delay a burglar’s entry time. The majority of studies, including the benchmark study of Bennett and Wright (1984), seem to conclude that locks are ineffectual (Cromwell, 1994; Cromwell, Olson and Avary, 1991a; 1991b; 1993; Fey, 1986; Hough, 1987; Maguire and Bennett, 1982; Winchester and Jackson, 1982; Wright and Decker, 1994). The French Ministry of the Interior (1978) found that in 75% of cases burglars gain entry through the front door. Hough (1987) found that one-third of the entry to homes was via the front and two-thirds from the rear or side. However, for flats, two-thirds of burglars entered from the front and one-third from the side or rear. Even if some of these doors are locked they really only amount to a psychological barrier.

Edgar and McInerney (1987) argued that no lock is invulnerable. The only deterrent effect a good lock may have is in how long it takes to defeat it. A longer time period may increase the chance of detection. Edgar and McInerney list twenty easily learned methods that can defeat some of the best and most expensive locks available. They even listed the numerous ways a burglar can gain entry via a locked door even if the lock on the door is beyond a burglar’s expertise.

National Bureau of Standards (NBS; 1974) argues for the establishment of a national standard for exterior doors. The National Bureau of Standards developed a test to withstand the force of kicking/jemmying a door which are the most common methods of forceful entry. The National Bureau of Standards estimates that 65% of
doors in the United States would easily fail their test. Owners are allowing young, inexperienced, impulsive and opportunistic burglars to gain entry. Atlas (1988) agreed that minimal building codes should be developed for crime prevention purposes.

Mayhew (1984) after assessing results from a B&E prevention programs in Kent and the Thames Valley area, concluded that prevention campaigns based on target hardening were not likely to reduce overall levels of B&E because target hardening improvements only have a marginal effect.

In a key finding Wright, Logie and Decker (1995) found the presence of an extra lock reduced attractiveness for control subjects but not for burglars. It may be the case that to a layman a good lock is a foreboding deterrent, but to a skilled or even semi-skilled burglar it is means a slight increase in entry time or a change of entry point.

In contrast to the above findings Hakim and Buck (1991; 1992) found that 70% of burglars in their study entered through the front or back door. They found that a deadbolt lock did act as a deterrent. Tilley and Webb (1994) examined a crime prevention initiative that utilised the introduction of better locks on two housing estates. Compared to a control area the two estates experienced 60% and 90% reductions in burglary. Ninety-two percent of the burglars in Nee and Taylor's (1988) study stated that high level target hardening was ineffective. Only 8% of the subjects stated that it was an effective deterrent. They also detailed that 75% of the burglars stated that double glazing was not a deterrent, while 25% stated that it was an effective deterrent.

**HOUSE SURROUNDINGS**

Studies (Bennett and Wright, 1984; Rebscher, 1990) have found that the denseness of the flora surrounding a potential target can have an attractive influence on burglar decision making. One significant study (Nee and Taylor, 1988) found that this cue had no influence. Appleton (1975) proposed a prospect and refuge survival theory.
Humans seek a place where they have a wide uninterrupted prospect that aids their surveillance and provides a safe refuge. Fisher and Nasar (1992) extrapolate Appleton’s finding and argued that places that offer a good viewing prospect and plenty of refuge are places that a potential offender would favour. Potential victims feel most safe in areas with open prospect and no refuge areas, whereas potential offenders prefer limited prospect and high refuge areas. Fisher and Nasar (1992), in a study of a university campus in Ohio, found that areas with refuge for the offender and limited prospect for the victim contributed to a fear of crime, whereas areas with an open prospect for the victim and limited refuge for the offender contributed to a feeling of safety.

Pablant and Baxter (1975) support Fisher and Nasar. They found in a study of schools, that those with high walls or vegetation that obstructed a view from the street onto the school were vandalised significantly more than schools that provided an open prospect. Taylor and Nee (1988) also support this view. They found that burglars look for site clues that increase concealment. Camp (1968) and Tiffany and Ketchel (1979) both conducted studies on bank robbers they both found that bank robbers preferred banks that had poor visibility from the outside in, but good visibility from the inside out. This is an affirmation of Appleton’s theory. In contrast to the aforementioned, all the burglars in Nee and Taylors’ (1988) study expressed total ambivalence about vegetative cover.

LOCATION OF A HOUSE

Many studies (Hakim and Buck, 1991; 1992; Repetto, 1974; Taylor and Nee, 1988; Van Dijk, Mayhew and Killias, 1990) have provided strong evidence that a house situated on a corner is a more vulnerable. Bennett and Wright (1984), Taylor and Nee (1988) and Nee and Taylor (1988) found that burglars rated possible targets as more attractive if they had multiple routes that would enable many methods of escape. They also argued that burglars prefer targets where reconnaissance and access can be via the rear of the dwelling. Hough (1987) stated that accessibility is taken into account by burglars. Physical access to the rear of properties is important.
Hakim and Gaffney (1995) determined that properties that back on to wooded areas or deserted areas such as railroad tracks were more preferred targets because they have easy rear access.

**DEFICIENCIES IN PREVIOUS RESEARCH**

There have been four fundamental deficiencies in previous burglary decision making research – weakness in methodological design, a failure to incorporate different alternatives for cues, not allowing subjects to select as little or as much information as they need and a failure to include interactions.

The first deficiency is that often studies have been methodologically basic in design with sophisticated studies (Brown and Bentley, 1993; Perkins, Meeks, and Taylor, 1992; Shaw and Gifford, 1994) being uncommon. This led to Weisburd (1997) calling for a more methodologically sophisticated approach to crime prevention research. Researchers are responding with more intricate and complex work (Hakim, Rengert, Shachmurove, 2000; Piquero and Rengert, 1999). This thesis is a further development of the field.

Often cues are examined independently. For example, a subject may be asked about the deterrent influence of a dog. However, the deterrent influence of a dog is not examined relative to the presence of many attractive cues such as inside information or the street being very quiet and deserted. Some research into B&E target selection has attempted to itemise the deterrent and attractiveness properties of individual cues. However, some designs are far from realistic. In a study by Bennett and Wright (1984), each cue used by a burglar was treated as though it existed in perfect isolation. This implies that each cue is equally important. This is unrealistic. Using this method, if a dead bolt lock was rated as an effective deterrent, its absence must therefore be an equally attractive aspect of a target. It may well be that a house may have a dead bolt lock, but other factors may be present that totally outweigh any of the deterrence arising from the dead bolt lock. What occurs in reality is summed up by Nee and Taylor (1988) who argued that "target selection is determined by
multiple cue factors, and various combinations of cues make a house attractive to the burglar" (p. 114). Bennett and Wright (1983; 1984) conducted their studies by asking the participants to start from a position where they are going to burgle a target, and then indicate what would deter them. The initial choice of target was made for the participants, which assumes that all targets induce B&E at the same level. Deusinger (1989) found that not one experienced burglar regarded all of the buildings as equally attractive. This result was in complete contrast to that of Bennett and Wright.

It may well be the case that the effect of a cue can be different in various combinations of other cues. Perhaps the influence of the best single deterrent cue can be counteracted by the presence of many of the best attractive cues, and conversely the influence of the best attractive cue may be counteracted by the presence of many of the best deterrent cues.

The second deficiency in previous studies is not incorporating different alternatives for a cue. For example, subjects may be asked about the deterrent effect of the presence of a barking dog, but the subject is not asked about the possible attractive or neutral influence of no dog being present. Some cues can have many alternatives. For example, street type can vary from a cul-de-sac, to a normal suburban road through to a major arterial road. Each one of these alternatives for street type could have a varied influence on the overall vulnerability of a potential target.

The third deficiency in previous research is that often subjects are asked about the influence of various cues, but the subject is not asked to indicate if they take a particular cue into consideration. For example, subjects may be asked about the deterrent effect of a car in a driveway. A subject will then assess and provide an answer on the potential deterrent effect of a car in a driveway. What is not asked is if this cue is utilised in all situations. To further progress the example, if a house has a good alarm, a vicious dog barking and many neighbours in the street a subject might not even consider the presence of a car in a driveway. The assumption made by many researchers is that every subject assesses the potential deterrent effect of a car
in a driveway every time they assess a potential target. It may be that some subjects never consider a car in a driveway, while other subjects always consider it and yet others who do consider a car in driveway may sometimes not consider it if other cues are present. Another common method is comparing the physical differences between burglarised and non-burglarised dwellings (Robinson, 1997; 1998a). Often researchers assume that all differences are considered and are given equal relevance by burglars.

The fourth deficiency in previous research is a general failure to incorporate possible interactions between an offender’s decision making and their age and experience. Age and experience are two variables that can interact with an offender’s interpretation of a cue (Camerer and Johnson, 1991; Einhorn, 1986; Ericsson and Smith, 1991; Gaeth and Shanteau, 1986). For example, the presence of a good alarm could have a different influence on a young and inexperienced burglar compared to an older and experienced burglar.

As well as these four deficiencies there an overall shortcoming in burglar decision making research in terms of the unsophisticated methodology utilised. Much B&E research is based on interviews (Jacobs, 1996a; 1996b; Shover, 1991; Wright and Decker, 1997), which usually include the four deficiencies. While interesting and valuable results are obtained the reliability of the stated effect of any cues will remain questionable.

CONCLUSION

B&E is a very common crime that can have mild to devastating effects on victims. Researchers argue that many income producing crimes are committed to finance drug addictions. B&E is a crime that is often utilised to get money or property to exchange for money. The inadequacy of traditional policing methods has led to police trying alternative methods to prevent B&E. The results of these methods have been mixed. There is a need for theoretical research on B&E to better inform
prevention initiatives. The research aim of this thesis is to conduct theoretically well founded research on B&E, with prevention as its ultimate objective.

Environmental influences can inform a researcher how burglars are drawn to particular street types. These influences have their effect well before any decision making takes place. However, research on burglar decision making explains why one particular house in a street is the target of a B&E. Previous research has settled on a number of cues that could figure in the decision making of burglars. All of these cues are utilised in the research conducted for this thesis. The main deficiencies found in previous burglar decision making research are addressed by the method utilised in the research conducted for this thesis.

Study One examined fifty burglars and their drug use (predominantly heroin). For Study One interviews were conducted with fifty persons who attended a methadone clinic. They were past heroin users who financed their drug use predominantly through the commission of break and enter. Semi-structured interviews were conducted that covered their drug use and criminal involvement. From these interviews and past research findings a list of seventeen cues was developed – cue 1 (dog), cue 2 (lighting), cue 3 (alarm), cue 4 (occupancy - lights/tv/radio), cue 5 (occupancy - car in driveway), cue 6 (affluence), cue 7 (doors/windows), cue 8 (locks), cue 9 (garage), cue 10 (fence), cue 11 (garden), cue 12 (location), cue 13 (people in the street), cue 14 (neighbourhood watch), cue 15 (weather), cue 16 (inside information) and cue 17 (street type). Burglars use these seventeen cues to determine whether a target is attractive or a deterrent.

For Study Two a computer program was developed, which arranged these seventeen cues, in various combinations, across twenty case studies. The computer program allowed subjects to access as much information about the case study as they needed to make a decision about its attractiveness as a burglary target. A further ninety-six subjects were asked to view the twenty case studies and give each target a rating from ‘0’ (not a B&E opportunity) to ‘100’ (definite B&E opportunity). The methods and results of these two studies are described in the following chapters.
CHAPTER 4: STUDY ONE AIM AND METHOD

AIM

An overall objective of Study One was gain some understanding of the life of a heroin user who supported their addiction through break and enter. A deeper understanding would allow the informed interpretation of the results in Study Two. Study One has two specific objectives. Each objective addresses one of the two research questions. The first was to provide details of the decision making process used by the subjects to select a target. This would inform and assist the design of the decision making software program utilised for Study Two. The second was to identify the crucial cues used by burglars to select a target. Study Two is primarily an attempt to surmount the deficiencies that have typified previous research on break and enter decision making. However, the method for Study Two is reliant on the data obtained in Study One. This chapter describes the aim and method for Study One.

Some questions were posed in Chapter One as the basis for the research conducted in Study One and Two. For Study One the two questions posed were:

1. What are the processes used by burglars to select a target, break in, steal, and distribute the proceeds?
2. What are the crucial decision making cues used to select a target?

There are no specific hypotheses for Study One or Study Two as the purpose of both studies is predominantly exploratory. The aim is not to test a component of a theory. The combined aim for both studies is to utilise a scientific and rigorous method to examine and investigate in detail the interactions and effects that occur when a burglar is selecting a target.
SOURCING SUBJECTS

The source of subjects for any study is an important consideration (Junger-Tas and Marshall, 1999). Research conducted in the area of drug use and crime has considered the merits of various sources of subjects. Wright, Decker, Redfern and Smith (1992) argue that research using incarcerated, arrested or retired convicted offenders can be attacked as less than representative, because these subjects have been unable to avoid arrest. McCall (1978) states that the use of a biased sample from the criminal justice system is “the most central bogeyman in the criminologist’s demonology” (p. 27). Many other researchers agree with McCall (Cromwell, Olson and Avary, 1991a; 1991b; Hagedorn, 1990; Watters and Biernacki, 1989; Wright and Bennett, 1990). They argue that subjects must be accessed through contacts other than the criminal justice system in order to attain a more representative sample.

Ball (1972) conducted research to ascertain the reliability and validity of the testimony of narcotic drug addicts in relation to their illegal activities. Ball’s results “indicate a rather surprising veracity” on the part of the addicts (p. 653). Self-reports are accepted as reliable indicators of drug and alcohol use (Maxfield, Weiler and Widon, 2000; Rouse, Kozel and Richards, 1985; Single, Kandel and Johnson, 1975) and delinquency (Hindelang, Hirschi and Weis, 1981; Huizinga and Elliot, 1981), provided they are conducted in a non-threatening environment that is not connected to the criminal justice system. In light of this previous research, it was decided to access burglars from the health system (methadone clinics) for Study One and from a privately run post-prison release centre for Study Two.

The literature raises concerns with studies obtaining subjects from within the criminal justice system. In light of this finding, the subjects recruited for Study One and Two were not sourced from the criminal justice system. In Study One subjects were sourced from within the health system. For Study Two subjects were sourced from a privately run post-prison reintegration scheme. The scheme may obtain its clients from prisons, but it is in no way officially part of the criminal justice system.
This private organisation also operates numerous half-way homes for homeless youth. Some subjects were sourced from these homes.

PARTICIPANTS

Both studies included the involvement of human participants. To comply with the Australian National Health and Medical Research Council’s guidelines on experimentation involving humans, ethics approval was obtained from the following four bodies before any data collection took place.

a) Griffith University, Ethics Sub-Committee for Experimentation on Humans (Appendix 1).

b) Queensland Department of Health, South Coast Region, Gold Coast Hospital Research Ethics Committee (Appendix 2).

c) Queensland Department of Health, Brisbane South Region, North Western Sector, Princess Alexandra Hospital Research Ethics Committee (Appendix 3).

d) Queensland Department of Health, Brisbane North Region, Southern Health Sector, Royal Brisbane Hospital Research Ethics Committee and the Royal Brisbane Hospital Research Scientific Sub Committee (Appendix 4).

Ethics approval was also sought and granted from the Queensland Corrective Services Research Committee (Appendix 5). However, no participants were sourced from the corrections system.

The subjects for this study were all experienced burglars. Some had committed a few burglaries, while others had committed over 100. The subjects were sourced from three Queensland Government funded and operated methadone clinics, two in Brisbane and one on the Gold Coast. The subjects in Study One, all methadone users who were currently active or recently active burglars, were chosen by two methods. Workers at the methadone clinics identified possible subjects and asked them to become involved in the study on a voluntary basis. Alternatively, subjects were identified through a poster, which advised of the project. The poster was displayed
in the waiting rooms of the clinics. The poster had a written message that asked if a client had been involved in B&E they could assist a university research project. If people were interested, the poster stated that they should speak to their case manager. For a subject to be selected they had to self ascribe as having committed at least a few residential B&Es. For the purposes of this study a strict legal definition of B&E was not be employed. The concept was a layman’s definition, which is unlawfully breaking into a private residence with the intention to steal property.

Methadone users arrive at their clinic every day at approximately the same time and they are given a dosage of methadone. It is a 24 hour cycle of usage. Ideally, the dosage is slowly reduced over a long period of time until the user is rehabilitated. However, many clients are on a permanent maintenance dosage program. When the user arrives they are often very edgy, restless and have attention problems, because they are strung-out and in drastic need of their methadone (methadone needy). However, the health professionals at the three methadone clinics stated that the methadone withdrawal cycle was purely psychological as methadone has a very long activity span which greatly exceeds 24 hours. Approximately 30 minutes after the ingestion of the methadone the methadone user becomes very relaxed, easy going and mildly elated (methadone affected). The process is illustrated in Figure 5.

**Figure 5: Psychological methadone addiction cycle.**

- Ingestion of drug
- Drug needy state
- Drug affected state
- Withdrawal

Fifty subjects were interviewed, comprising 35 males and 15 females. The age range of the respondents was 23 to 45 years. The mean age was 33 years. The seniority of the age range and mean is accounted for by the fact that many methadone clients are persons who have turned to methadone after a long period of drug use and possible criminal involvement. Forty-nine of the 50 respondents left school at 13 to 15 years