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Women's perceptions of safety : CCTV in an inner city setting

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Women's Perceptions of Safety: CCTV in an Inner City Setting

Kate Hancock

A Thesis Submitted in Partial Fulfillment of the Requirements for the Award of
Master of Criminal Justice

School of Justice and Business Law

Faculty of Business and Public Management

Date of Submission: 22 September 2004

I declare that this written assignment is my own work and does not include:

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Kate Hancock

Date: 04-11-2004

Abstract

To date, most research on closed circuit television (CCTV) has come out of the United Kingdom (UK) where the growth of CCTV has reached immense proportions with wide support and funding from the Home Office. There are 33 systems operating in Australia, with the focus of this research on the first system installed in Perth, Western Australia in 1991. There is a dearth of information on CCTV in Australia, and little research looking at the link between CCTV, women's safety and fear of crime. The literature on fear of crime shows that women are more fearful than men even though they are less likely to be offended against. Many reasons are proposed in the literature including vulnerability, victimisation and past experience of crime, environmental factors, and psychological factors to explain women's fear. Many methodological problems are presented in the fear of crime literature.

The core aim of this research was to collect informative attitudes, knowledge and opinions about closed circuit television (CCTV) and women's safety. Six qualitative interviews were conducted with women who work in fields related to CCTV and women's safety or who have a keen interest in the field. A further 295 women in the community were surveyed about issues relating to the purpose and effectiveness of CCTV, attitudes about CCTV and general feelings towards crime and safety.

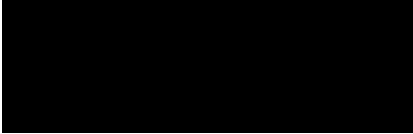
The findings show that women are overwhelmingly supportive of CCTV in public spaces and believe CCTV reduces crime and increases feelings of safety. However, women consider the current level of surveillance to be sufficient, and would like to see more police officers, women police, and improved street lighting. Women are fearful for their safety at night and are afraid of personal crimes more than property crimes. Women are fearful at the railway station, when they are alone, in car parks and walkways and when waiting for taxis. Older women are more supportive of CCTV than younger women and all women would like to be made more aware of the CCTV system.

Key Words: Attitudes, CCTV, women's safety, fear of crime, police officers, personal crimes, property crimes, awareness.

Declaration by candidate

“I certify that this thesis does not contain without acknowledgement, any material previously submitted for a degree or diploma in any institution of higher education; and that to the best of my knowledge and belief, it does not contain any material previously published or written by another person except where due reference is made in the text.”

Signed



Date: 04-11-2004

Acknowledgement of help

The material on CCTV in Australia was adapted from an article by Dr Dean Wilson and Dr Adam Sutton from the University of Melbourne. Dr Dean Wilson was kind enough to provide me with this unpublished article without which I would have struggled to provide adequate information on CCTV surveillance in Australia. Where material from this article is used it is referenced to these authors.

Ms Amy Green helped with the collection of surveys and Ms Tara Crane transcribed the interview material.

Help was also received from Dr Andrew Guilfoyle with SPSS and data analysis.

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Mere thanks are inadequate, but thanks nonetheless to Irene, my supervisor and mentor, for her faith, her endurance, her motivation, and her humour (especially when I changed my topic a quarter of the way through!). Without these, and much more, the road would never have been travelled. Special thanks to Andrew for his time and patience when explaining SPSS to me and helping with the data analysis and also to Sybe Jongeling for his honest advice at the proposal stage.

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FINIS !!!!!.

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CHAPTER 1

LITERATURE REVIEW

Women's Perceptions of Safety: CCTV in an Inner City Setting

Introduction

Background to the Study

The topic for this Master of Criminal Justice research came about as the researcher is interested in women's safety. The researcher has done voluntary work in women's refuges, soup kitchens, with the elderly and with sexual assault victims. The researcher currently works for the Department of Justice doing protective and reparative mediation work that involves exposure to perpetrators and victims. From this work women's safety issues in the home and on the street have become a personal interest. The street is a place where women have a right to feel safe. Women should be able to walk through their community without fear of any form of harassment. The researcher found it interesting that the literature has found that women's fear of crime outweighs the reality of actual victimisation rates and that women take many precautions, including using avoidance behaviours in order to feel safe. Women's fear of crime is not only a reality but is an individual perception of reality based on many factors. The next step was an interest in how crimes against women could be, and are being, reduced and how we as a community could help women to feel safer on the street and therefore improve their quality of life. An interest in environmental design and other crime reduction techniques brought the researcher to a point in the reading where Closed Circuit Television (hereinafter referred to as CCTV) became the focus of the research.

Closed circuit television surveillance is technology installed in communities to record the environment. Police and/or security staff monitor the cameras from screens in a central location. The decision to look at CCTV and women's safety came about as most research on women's safety issues has focused on domestic or family violence, street safety (generally) or issues of victimisation. There is very little literature looking at women's attitudes and feelings of safety in relation to CCTV and little research on this topic coming out of Australia. With the growing use of CCTV, there is a need to understand women's attitudes towards safety and CCTV.

In 1991, the Perth City Council installed CCTV in the city to increase feelings of safety and to reduce crime. The council later expanded the system to include the entertainment area of Northbridge. This research focuses on women's awareness of CCTV, its perceived purpose and effectiveness, and further ways to increase women's feelings of safety in this area. The use of CCTV is growing exponentially around the world and its increased use in Australia is supported by limited research. It is important to understand how the public views CCTV and its effectiveness in achieving its aims. To date, there is no specific research on women and CCTV in Australia so it is hoped this research will shed some light on this topic.

This research is significant because the use of CCTV as a crime reduction tool is on the increase and large proportions of the crime budget and community money are being spent on the installation of CCTV to reduce crime and increase feelings of safety. It is important for research to be carried out so that communities are aware of how effective CCTV is and that the money spent on CCTV can be justified. Understanding how the community feel about the methods used to protect their interests is vital as is research exploring feelings of safety in the community. The researcher will use this information to challenge and improve current safety knowledge and practices and the findings could be used for crime prevention, women's policy, victim support, and by the criminal justice system and government.

THEORETICAL FRAMEWORK

THE SOCIAL CONSTRUCTIONIST MODEL

a) Theoretical Framework – Social Constructionism

The aims of the present study are concerned with looking at women's perceptions of CCTV and whether these perceptions include an influence on feelings of safety in the community. The study looks at CCTV and women's concerns about crime, specifically if environmental features (in this case CCTV) influence women's attitudes towards CCTV and safety. As a result, these factors may best be conceptualised within a social constructionist framework.

Social constructionism suggests that knowledge is sustained by social processes and within this framework researchers have suggested that factors such as gender, age, race, class, culture, the community, economics, and the media (and other social structures) are the agents through which we shape and construct our ideas of what constitutes our individual realities (Campbell & Wasco, 2000). According to Guba and Lincoln, (1994) reality and knowledge are socially constructed. The framework is "principally concerned with explaining the processes by which people come to describe, explain, or otherwise account for the world (including themselves) in which they live" (Gergen, 1985; p.266).

Gergen (1985) proposes four assumptions of the framework. The current study is used as an example to illustrate how the assumptions are applied to the context of women and CCTV. Assumption one states - "what we take to be experience of the world does not in itself dictate terms by which the world is understood" (Gergen, 1985; p.266). This is important in the proposed research, as a central paradox in the fear of crime literature is that women's experience of crime and their attitudes towards crime do not match (Gabriel & Greve, 2003). Research shows that even though women are less likely than men to be victimised they have a disproportionate fear of victimisation (Hale, 1996). It is important to try to understand why women are so fearful, what can be done to reduce these levels of concern, and whether women perceive CCTV to be effective at making them feel safer in the community.

Assumption two states - "the terms in which the world is understood are social artifacts, products of historically situated interchanges among people" (Gergen, 1985; p.267). In the context of women's fear of crime, this assumption relates to historical

attitudes about socialisation and conditioning of the genders in society and how society expects women

to be less powerful than men and therefore, more vulnerable and fearful. This is supported by media portrayals of crimes against women and by the very nature of many of the crimes themselves. Women have been socialised from a very young age to be fearful of the 'boogey man' and it is possible that this fear stays with them as they become women and is supported by the society in which they live and which is perpetuated over generations (James, 2003).

Assumption three states - "the degree to which a given form of understanding prevails or is sustained across time is not fundamentally dependent on the empirical validity of the perspective in question, but on the vicissitudes of social processes" (Gergen, 1985; p.268). Assumption three proposes that individual perspectives or views can remain stable over time, despite changes or variations in conduct or the environment. This assumption relates to why women's attitudes and fears remain stable, despite changes in crime prevention techniques. The literature shows that women and the elderly are more fearful and carry this fear into different contexts. Women suffer a higher rate of violence in the home and despite social processes and change in the community this fear of violence is carried into environments external from the home.

Assumption four states - "forms of negotiated understanding are of critical significance in social life, as they are integrally connected with many other activities in which people engage. Descriptions and explanations of the world themselves constitute forms of social action" (Gergen, 1985; p.268). The individual reality women construct about crime and individual safety will influence the level of fear they experience. It will also affect the strategies and behaviour they adopt for coping with this fear and the way they negotiate the use of social space.

The social constructionist framework helps to explain how social factors and experience shape the construction of individual realities and thus determine how we view the world.

The research activity within this framework utilizes a variety of methodologies but is best described as a subjective approach. This allows the researcher the opportunity to engage the participants in dialogue, in order to explore complex and unique settings

(Campbell & Wasco, 2000). Within this approach, different people will apply diverse meanings to understanding certain events. As such, having participants explain their perceptions of events is central in the examining of discourse that is the result of experience and interactions and the perceived implications this has on the individual.

As a result of the use of discourse in social constructionism the design utilized in stage one of this study is of a qualitative nature, which allows participants a descriptive way to convey their experiences. Study two will draw on these experiences to further explore women's perceptions within the quantitative research paradigm.

CLOSED CIRCUIT TELEVISION

b) CCTV

Introduction

Open-Street Closed Circuit Television (hereinafter referred to as “CCTV”) is technology designed to visually monitor environments through the use of surveillance cameras. CCTV is a form of situational crime prevention that has become a prominent tool for crime prevention strategies worldwide. According to situational crime prevention, offending is the result of careful decision making based on the weighing up of costs and benefits in the immediate situation. According to this approach, utilising a range of techniques aimed at reducing the attractiveness and opportunity to commit offences, can prevent crime.

In the past decade, the use of CCTV has grown and has become an integral part of many crime control policies. The use of CCTV for public space surveillance has received increasing amounts of attention and the number of CCTV systems is expanding to epic proportions. With the rise in usage comes an increase in public and media interest and research into CCTV is expanding rapidly.

This review will give a brief historical account of CCTV. It will then review the literature on CCTV, its aims and objectives, impact on offending, and political and social context from a UK perspective and will outline CCTV surveillance usage on an international level, look at CCTV in Australia, public awareness, perceptions and fear of crime, and criticisms of CCTV surveillance.

Section one provides a brief overview of the historical and current context of CCTV around the world.

Section two reviews the empirical and theoretical literature on CCTV. To date most research on CCTV has been conducted in the United Kingdom (UK) where CCTV is one of the fastest growing sectors of the security industry. An examination of the literature reveals that the purpose and effectiveness of CCTV has not been conclusively determined and further research is required to determine when and in what situations CCTV should be installed. This overview helps to place CCTV in its current political and social context.

Section three outlines the current state of open-street CCTV surveillance in Australia. This section gives a brief overview of the 33 systems operating in Australia with particular focus on the largest Australian system, operating in Perth, Western Australia.

Section four discusses issues of public awareness in relation to CCTV systems, and attitudes towards public surveillance. Fear of crime, public perceptions and the media will be discussed as will the interaction between policing and CCTV systems.

Section five provides a brief discussion of the criticisms of CCTV and how these impact on its effectiveness as a crime reduction tool.

The conclusion will briefly discuss some possible future developments and research on CCTV.

Historical Development of CCTV

The development of photographic evidence in the 1840's, television in the 1930's and video and cassette recording in the 1960's meant that images could be captured and recorded (Norris and Armstrong, 1999). These images could be monitored and permanent records made. The rapid up-take of CCTV surveillance for public use can be attributed to the availability and expansion of technology (Norris and Armstrong, 1999). In 1967 "photo scan launched CCTV into the retail sector" (Norris and Armstrong, 1999), as a means of reducing crime and increasing arrests of shoplifters. This was the first use of CCTV technology as a crime control method in the UK.

The 1990's saw the growth of CCTV and problems of data volume, archiving, and identification were addressed. Technology continued to progress and CCTV was used for automatic licence plate systems and software designers continued and still continue to develop automated facial recognition systems. CCTV was seen to be the 'next best thing' in crime control technology and its use grew exponentially (Norris and Armstrong, 1999; p.18).

The growth of surveillance can be linked to a rise in modernity and the availability of technologies that could capture electronic information (Norris and Armstrong, 1999). Over time, we have seen the progression of technology into many

spheres of life showing that the growth of CCTV is only one element of a larger body of sophisticated technologies used every day. Norris and Armstrong (1999; p.22) argue “industrialization, land reform, population growth and the consequent growth of cities have radically transformed the intimacy of the pre-industrial age”. This has meant that anonymity is valued and we have seen the “rise of the stranger society” (Norris and Armstrong, 1999; p.23). Individuals no longer rely on the fact that they know each other for protection and increasingly rely on outside bodies such as the police, security companies and sophisticated surveillance systems (Norris and Armstrong, 1999).

Ericson and Haggerty (1997) have argued that there has been a transition towards a ‘risk society’ where outside surveillance is accepted by the community and where policing is proactive rather than reactive. This has meant that individuals are more willing to give up personal information and a move towards the use of surveillance and DNA profiling is commonly accepted. Freely and Simon (1994) argue that there has been a shift towards ‘actuarial justice’. This suggests that there is a move away from the treatment of individuals and towards regulating whole populations to help minimise risk. CCTV is an element of this shift as crime control methods move towards mass rather than individual surveillance. Still other theories have claimed that the rise of CCTV surveillance can be attributed to the tendency of urban city centres to move from being sites of production to sites of public consumption and consumerism (Wilson and Sutton, 2003). Commerce and globalisation have made both individuals and society image conscious and there have been attempts to provide risk free environments to help promote business, tourism and public spending (Wilson and Sutton, 2003).

Along with technological and social advances came increased political support for the use of CCTV in public spaces (Norris and Armstrong, 1999). There was a move in the UK from the use of private cameras in the 1970’s to the first public space surveillance system in 1985 (Norris and Armstrong, 1999). The Conservative government in the UK in 1994 made CCTV part of its ‘law and order policy’ and strongly supported its introduction in town and city centres. There was strong financial support from the Home Office and by 1995, “78 per cent of the Home Office budget for crime prevention was expended on schemes to establish CCTV in public spaces” (Wilson and Sutton, 2003; p.9).

By 1999, it was estimated that the Home Office had funded 530 CCTV schemes in the UK with numbers continuing to grow (Wilson and Sutton, 2003). There is little direct regulation of CCTV systems in the UK with most being operated under Codes of Practice that provide some level of regulation but are voluntarily abided by. The *Data Protection Act* 1998 is the only legally enforceable document in relation to CCTV (Wilson and Sutton, 2003).

With its expanding use in the UK, many other European locations and countries world-wide, began to introduce CCTV in public spaces to reduce and control crime. In the mid 1990's, Ireland established its first system in Dublin, which was followed by France, Spain, Italy, Belgium, Finland, Sweden, Germany, the United States, South Africa, New Zealand and many others (Wilson and Sutton, 2003).

Australia's first CCTV system was installed in Perth in 1991 and there are now 33 systems Australia wide (Wilson and Sutton, 2003). There has been little study to date dealing with CCTV in Australia, where research has focused more on situational crime prevention. With the growing number of systems, more research is beginning to emerge, as are concerns over the lack of CCTV regulation. CCTV in Australia is discussed in section four.

CCTV is now used for surveillance in residential areas, schools, car parks, financial institutions, museums and galleries, petrol stations, railway stations, hospitals, parks and in the retail and commercial industry, to survey road traffic, telephones and cash machines, and also by the police. In the 1990's it was claimed that CCTV was the "crime prevention initiative of the century" (Norris and Armstrong, 1999; p.56) and it seems from this date forward the growth of CCTV, as a crime control method, has been unstoppable with proposals for systems world wide on the increase. With technological advances CCTV is likely to be introduced for facial recognition and in the future systems will virtually run themselves (Norris and Armstrong, 1999). There are concerns however, as to date there is little in the way of regulation, and legislation dealing with public surveillance is almost non-existent (Norris and Armstrong, 1999). To be truly effective the growth in this technology needs to be matched by a growth in policy and legislation so the public can hold the systems and their operators accountable.

Open-Street CCTV – Review of UK Literature and International Usage of CCTV

The UK experience

Research conducted in the community shows that the use of CCTV systems in public spaces is on the increase. There is an expanding body of literature dealing with the costs and benefits of CCTV installation and the role CCTV plays in both crime prevention and reduction. The UK has seen the expansion of CCTV into many town and city centres with substantial funding provided by the Home Office. Due to this growth in the UK, much of the literature dealing with CCTV is UK based. The extent of literature on British CCTV systems is yet to be provided elsewhere. In Australia, there is a limited but growing amount of information available on Australian use of CCTV and its effectiveness. The overview below is largely UK based, as the international and Australian experience will be discussed in sections three and four.

The initial growth in the use of CCTV in the community seems to be motivated by the purposes and outcomes which may be realised by its use: the primary goal being to reduce crime. CCTV was first introduced in shops, car parks, sports grounds, buses and the London Underground to help reduce offending (Wilson and Sutton, 2003). Studies in these locations suggested positive results (Burrows, 1979; Poyner, 1988; Tilley, 1993). Offending was reduced within these specific, enclosed locations and this provides evidence of the effectiveness of CCTV.

The results of studies of CCTV in street locations have not been so clear and many ambiguous results have been found. There are some consistencies between the findings which show five main purposes of CCTV in the community. These include: preventing anti-social behaviour by acting as a deterrent to potential offenders; helping to reduce fear of crime amongst residents; increases in detecting anti-social behaviour due to greater visibility of offences as they occur; increases in arrest rates and prosecution of offenders due to availability of evidence and effective deployment of resources; and its usefulness as a general site management tool (Bernard, 1988; Horne, 1996; Norris and Armstrong, 1999; Reeve, 1998). The purposes and effectiveness of CCTV is discussed further in section five.

Many studies of CCTV systems in cities and towns have been carried out by local government authorities, producing results that may not be reliable (Ditton and Short, 1996). However, over time some independent reviews have emerged. Many of these studies deal with crime reductions caused by the deterrent effect of CCTV. The rational choice perspective claims that offenders are deterred from committing offences because CCTV increases the perceived risk that offenders will be caught (Allard, 2002). "This satisfies the preventative element of deterrence theory which holds that misbehaviour will occur less frequently if there is more certainty regarding the likelihood of being detected and punished, there is a shorter period of time elapsing between the misbehaviour and the punishment, and where severe punishments are invoked" (Allard, 2002). Research based on samples of offenders has shown that "between two-fifths and one half of offenders would be deterred by CCTV" (Allard, 2002; p.35). Short and Ditton (1998) sampled 30 offenders and found that CCTV affected the behaviour of 12 of the 30. French (1995) found similar results: 48 per cent of his offending sample claimed that if they were under surveillance they would not commit an offence while 28 per cent were not sure if they would offend or not (would depend on the circumstances) and 24 per cent would have offended whether the cameras were present or not. Many offenders claim that they can avoid detection (Short and Ditton, 1998; Perring, 1995).

Other studies have looked at the crime statistics before and after the installation of CCTV to determine the effect that CCTV has on crime in the community. Brown's (1995) study employed a rigorous methodology and compared systems installed in Newcastle in 1992, Birmingham in 1989, and Kings Lynn in 1987. The results show a decline in some categories of offences following the introduction of CCTV but that it was possible that these effects would decline over time. Brown's results show that CCTV had an effect on rates of property crime and a less clear effect on personal crimes.

In Newcastle, there was a 56 per cent decline in burglary and a 34 per cent decline in criminal damage. Other evidence suggests that CCTV may have an impact on burglary (Armitage, Smyth and Pease, 1999; Chatterton and Frenz, 1994), however there is also evidence that CCTV has no effect on burglary (Mahalinham, 1996; Sarno, 1996).

Research by Mayhew, Clarke, Burrows, Hough and Winchester (1979) shows similar reductions in property offences after the installation of CCTV in the London Underground. Stations with CCTV show that “recorded thefts were nearly four times lower during the period of CCTV compared to before installation” (Mayhew et al, 1979; p. 124). Mayhew et al cautioned that these gains may wear off over time and that there may have been displacement to other stations. Reductions in vandalism and criminal damage have also been reported (Armitage, Smyth and Pease, 1999; Brown, 1995; Mahalingham, 1996; Poyner, 1992; Tilley, 1993).

Ditton and Short’s (1996) evaluation in Airdrie shows that after the introduction of CCTV, crime rates dropped by 21 per cent, there was a 16 per cent increase in the detection of crime and that clear-up rates improved by 8 per cent. There was concern expressed again about levels of displacement that would undermine the significance of the results. Armitage et al (1999) recorded a 25 per cent drop in recorded offences in Burnley over a two-year period. Other findings show that thefts from and thefts of motor vehicles are reduced with the introduction of CCTV (Smyth and Pease, 1999; Mahalinham, 1996; Sarno, 1996; Skinns, 1998; Tilley, 1993). In Bradford, Tilley (1993) found a 68 per cent reduction in thefts from motor vehicles and a 43 per cent decrease in motor vehicle theft over a twelve-month period.

The results of research looking at the effects of CCTV on assault are less clear. Several studies have found that CCTV prevents assault (Armitage, Smyth and Pease, 1999; Mahalinham, 1996; Sarno, 1996) whilst others report no effect (Brown, 1995; Skinns, 1998). Many studies have found less positive results. In Birmingham Brown (1995) found that there was no reduction in overall levels of offending, Mahalingham (1996) found no effect or increases in robbery and the effect of CCTV on drug offences is also still under debate (Armitage, Smyth and Pease, 1999; Mahalingham, 1996; Sarno, 1996). Findings of an evaluation study by Ditton et al (1999) in Glasgow show that the installation of cameras coincided with a 9 per cent increase in recorded crime. It has been suggested that it is problematic to link overall crime rates with the effectiveness of CCTV (Tilley, 1998). Crime rates are subject to random fluctuations over time as is the reporting

of crime to the police, making increases or decreases in crime rates after the installation of CCTV difficult to determine.

There is a growing body of evidence that suggests situational crime prevention and CCTV do not deter or reduce offending but simply displace crime to other locations (Barr and Pease, 1990; Brown, 1995; Davis, 1996; Ditton and Short, 1996; Skinns, 1998). This will be discussed further in section six. What is interesting is Poyner's (1988) and Armitage's et al (1999) findings of dispersal of positive benefits and diffusion of benefits to surrounding locations not covered by CCTV surveillance.

As CCTV research has developed, the literature has begun to explore further issues other than CCTV surveillance effect on crime. This research has focused on operational factors and has placed CCTV "within the wider framework of social, political and technological change" (Wilson and Sutton, 2003; p. 5). An example of this research is the work of Norris and Armstrong (1999) who look into the attitudes of those operating CCTV systems. This research has allowed the public's concerns on issues of discrimination to be raised and debated. The impact that developing technologies have on society is important and the way that operators choose who should come under the eye of surveillance are issues raised by the research. Public concerns over issues of discrimination may be real as certain individuals are likely to be singled out by the way they dress, their ethnic origin, their sex and their age.

Political concerns are raised by Davis (1996) who claims that CCTV has important implications for democratic rights and public policy, that CCTV is not effective, and should not be introduced. Fyfe and Bannister (1996) place CCTV in a broader political context and claim that CCTV can be seen as a "manifestation of a general expansion of power" (Fyfe and Bannister, 1996; p.39) by the state. They claim that CCTV "reinforces the infrastructural or administrative power of the state to penetrate and regulate the activities of civil society" (Fyfe and Bannister, 1996; p.39). Norris, Moran and Armstrong (1998) express concern over the social implications that developments in surveillance technology have for society. Many of these arguments rest on the impact of surveillance on civil liberties especially in the face of no, or very little, legislation dealing with public space surveillance. There are no standards or frameworks that CCTV must operate within, leaving the systems operation,

control and management to the system owners and operators. This raises operational and accountability concerns (Maguire, 1998).

Other European Locations

Less is known about camera surveillance in other European countries, however the literature available points to increases in its use. Monaco has a system of 60 cameras in both private and public spaces, one of the largest systems in a tiny country (Hempel and Topfer 2002, cited in Wilson and Sutton, 2003). Spain has installed CCTV in the Basque region to help reduce street violence and political demonstrations, with other areas in Spain also employing the use of CCTV (Nieto, 1997, cited in Wilson and Sutton, 2003). Italy and Belgium have installed cameras at major tourist sites and in city centres (Wilson and Sutton, 2003). Systems can also be found in Germany, the Netherlands, Finland, Sweden and Norway (Wilson and Sutton, 2003).

The use of CCTV began in 1994 in France and in 1995 the French government passed a Security Act allowing surveillance in public spaces. A 1997 report shows that police in Paris were monitoring 160 cameras situated in the city district and that many more systems had been installed in other French cities and towns (Hempel and Topfer, 2002)

USA and Canada

“The current extent of public space video surveillance in the United States remains uncertain” (Wilson and Sutton, 2003; p. 11). Nieto, Johnston-Dodds and Simons (2002) report that there are approximately 21 systems across the US. There are problems with the installation of CCTV in the United States as people argue that it violates the Fourth Amendment of the Constitution, which states that “the right of the people to be secure in their persons, houses, papers, and effects, against unreasonable searches and seizures, shall not be violated, and no Warrants shall issue, but upon probable cause, supported by Oath or affirmation, and particularly describing the place to be searched, and the persons or things to be seized” (U.S Constitution) and, therefore, should not be introduced. Despite this a proposal by police has been put forward in Washington DC to link up to 1000 cameras in streets, federal buildings, train stations and schools (Hsu, 2002).

Very little is known about open-street surveillance in Canada. Research currently being undertaken at Queens University is looking into CCTV in Canadian spaces. Systems are understood to be operating in Vancouver, Toronto, Ottawa, Peterborough, Sudbury and others (Wilson and Sutton, 2003).

South Africa

CCTV usage is expanding in South African city centres with 52 cameras operating in the Durban central business district. Cameras are also located in Port Elizabeth, Cape Town and Johannesburg. The system operating in Johannesburg is the largest in Africa with 90 cameras reported to be operating in 2001 and plans to enlarge the system to 360 cameras by 2003 (Wilson and Sutton, 2003).

New Zealand

As in other parts of the world the use of CCTV surveillance in New Zealand has been growing at a rapid rate. 16 cameras were installed in Auckland in 1995 followed by 15 cameras in Christchurch later in the same year (Waters, 1996). 5 cameras have been installed in Whangarei, 16 in New Plymouth and 6 in Wanganui. Further systems are operating in Ashburton, Hamilton, Matamata and Rotorua and plans to install systems in

Taupo, Napier and Lower Hutt are under way. In New Zealand, systems are operated by the police and funded by the Safer Community Councils (Wilson and Sutton, 2003).

Other Locations

CCTV cameras have been noted to operate in Russia, China, Iran, Iraq, Tibet and Singapore, however no research exists on the usage or locations of these systems (Wilson and Sutton, 2003).

Open-Street CCTV in Australia

The use of closed circuit television began in Australia in the 1960’s for the use of high-level security and by companies who manufactured hazardous materials (Wilson and Sutton, 2003). Australia’s first open-street CCTV surveillance system began operation in Perth in July 1991 and remains the largest operational system. Australia now has 33 systems operating in Adelaide, Hobart, Sydney, Brisbane and Melbourne with systems also in smaller regional centers (Wilson and Sutton, 2003). This is nearly three times as many as seven years ago (Wilson and Sutton, 2003). Table 1 below shows the number of CCTV systems operating in different locations across Australia and shows that the Northern Territory is the only Australian jurisdiction with no CCTV surveillance in public spaces (Wilson and Sutton, 2003).

Table 1

<u>Number of Open-Street CCTV Systems in Australia by State or Territory</u> <u>(As at October 2002)</u>	
New South Wales	11
Queensland	10
Western Australia	4
Victoria	3
Tasmania	3
South Australia	1
Australian Capital Territory	1
Northern Territory	0
Total	33

(Taken from Wilson and Sutton (2003) page 14).

With increasing competition in the security industry prices of installing systems have been falling and many businesses have had to find ways to cut operating costs. There is constant demand for CCTV products and the cost of closed circuit television equipment continues to decline. This decrease in the costs of technology has made CCTV

surveillance systems available to many local governments, who use the cameras to cover perceived high-risk areas with high rates of criminal activity (Wilson and Sutton, 2003).

There has been support from businesses and local governments who have generally been the bodies to establish and fund the installation of the systems. This has meant that there are diverse running systems in place that “display wide variation in administrative controls, funding models, operational practice and technology” (Wilson and Sutton, 2003; p. 14). New systems are learning from the mistakes of older systems, some operational guidelines are being established, and local authorities are learning from the experiences of other councils and from the advice of security consultants (Wilson and Sutton, 2003).

Local governments have been supported in some instances by State Government funding and it seems likely that this involvement will increase in the future (Wilson and Sutton, 2003). Funding was provided by the State government for the initial installation costs of systems in Tasmania and South Australia (Wilson and Sutton, 2003). Funding is becoming more common for CCTV systems in Queensland. The Queensland State Government’s Department of Local Government and Planning implemented a Security Improvement Programme (SIP) in 1999. This has seen funding increased and local councils using the programme to subsidise the cost of installing CCTV surveillance in public spaces (Wilson and Sutton, 2003). In 2002, the Queensland Premier’s department released CCTV installation guidelines for councils considering CCTV as a security option (Wilson and Sutton, 2003).

The New South Wales State Government has not provided financial support to local governments but has provided a comprehensive report on proposed legal reforms and voluntary guidelines on CCTV for local authorities (Wilson and Sutton, 2003). Concern has been expressed by the ACT standing committee and the Victorian Law Reform Commission over the absence of controls in relation to public space CCTV in Australia (Wilson and Sutton, 2003). Little has been done to change this situation over the last few years and “the fact remains that CCTV in public space remains largely unregulated in Australia, even if State Government guidelines now are facilitating the identification and establishment of best practice benchmarks” (Wilson and Sutton, 2003; p.15).

Australia does not have any “Federal, State or Territory legislation covering CCTV surveillance in public areas” (Wilson and Sutton, 2003; p.30).

Table 2 below shows the systems, year of installation, and number of cameras currently operating in Australia. These are briefly discussed below.

Table 2

Year of Installation and Number of Cameras of CCTV Systems in Australia (As At October 2002)

Location	State/Territory	Year	Initial Cameras	Current Cameras
Blacktown	NSW	2000	9	9
Bourke	NSW	1999	4	4
Dubbo	NSW	2002	11	11
Fairfield	NSW	1996	14	23
Lake macquarie	NSW	1999	2	2
Lismore	NSW	1999	8	11
Lithgow	NSW	1997	3	3
Sydney	NSW	1998	48	48
Sutherland	NSW	2002	11	11
Walgett	NSW	1999	5	5
Willoughby	NSW	1998	6	6
Brisbane	QLD	1993	13	44
Cairns	QLD	1997	14	16
Gatton	QLD	2002	6	6
Gold Coast	QLD	1998	16	40
Ipswich	QLD	1994	13	44
Logan	QLD	2001	8	8
Rockhampton	QLD	2001	4	4
Toowoomba	QLD	1995	24	43
Townsville	QLD	1995	12	18
Warwick	QLD	1996	10	10
Bunbury	WA	1998	14	14
Claremont	WA	1997	9	5
Perth	WA	1991	48	105
Rockingham	WA	2002	2	2
Bendigo	VIC	1998	6	6
Box Hill	VIC	1998	8	8
Melbourne	VIC	1997	10	23
Devonport	TAS	2000	8	8
Hobart	TAS	1996	4	7
Launceston	TAS	1995	4	9
Adelaide	SA	1995	12	33
Canberra	ACT	2001	15	15

Taken from Wilson and Sutton (2003) Page 33.

Western Australia

Western Australia currently has 4 systems operating in public spaces, including the first and largest system introduced in Australia. The City of Perth installed the system with consultation with the Ministry of Justice and with minimal input from the Western Australian State Government (Wilson and Sutton, 2003). Cameras are also operating in Claremont, which were installed after several high profile murders took place. The cameras were installed to assist police operations and were funded by the Ministry of Justice. Bunbury has cameras operating in the central business district and has applied for further funding from the Safer WA programme to expand the system (Wilson and Sutton, 2003). Cameras were also installed in Rockingham in 2002.

Perth

In 1991, the Perth City Council installed the first CCTV system in a public space in Australia which was to be overseen by the council with help from the police service. Due to high media coverage and public complaints that the city centre was unsafe and that there was retail decline, the CCTV system was commissioned on 1 July 1991 at a cost of \$750,000 and consisted of 48 pan-tilt-zoom monochrome cameras. The cameras were part of an overall city rejuvenation project by the local council (City of Perth, 2000).

In mid 1994 proposals were put forward for the system to be extended and in 1994/95, the system was extended to include the West Perth and Northbridge areas (Wilson and Sutton, 2003). Northbridge and West Perth are high-density areas where many people go drinking and night clubbing. There were complaints from the public that Northbridge was unsafe for those who accessed the area and that extra security measures were needed. Northbridge continues to be seen as a 'problem spot' in Perth. An extra 57 cameras were installed that were connected by coaxial cable and fibre optic to the Perth railway station where the main control room is located (Wilson and Sutton, 2003). The system is monitored 24 hours a day, seven days a week by two control room staff and a member of the WA police. There is a WA police officer present at all times. 48 of the 105 cameras have continuous digital recording. There are also monitors located in the Communications Centre of the WA police and in the local council offices.

There is little information available on the cameras in Perth and the Perth City Council is reluctant to provide community members with information. The author was only able to find a review on public perceptions of the system by obtaining it from a company in Melbourne. It would be interesting to read a crime reduction evaluation on the cameras so their effectiveness and the direction for the future could be discussed.

Claremont

Due to high profile abductions from some popular Claremont nightspots nine CCTV cameras were installed in the central area of Claremont in August of 1997. The cameras were installed to assist the police operations in the area and were funded by \$150,000 from the WA State Government Department of Justice (Wilson and Sutton, 2003).

In July 1999, the Macro Task Force finished its operation in Claremont and the use of the cameras was no longer required. The Town of Claremont decided to keep using 5 of the cameras, which have now been upgraded to digital in the interest of public safety. The cameras are now managed by the Perth City Council (Wilson and Sutton, 2003).

Bunbury

In 1998, 14 CCTV cameras were installed in the CBD to help combat car theft and malicious damage. The cameras are monitored in the council chambers and the Bunbury Police station (in 2001) where they are linked by fibre optic cables. Police use the system mainly as a reactive tool where most images are recorded onto hard drive with some specific incidents being monitored as they occur. There has been a proposal to expand the system and to have the system monitored full-time (Wilson and Sutton, 2003).

Rockingham

In May 2002 2 cameras were installed in the CBD area of Rockingham to combat drinking and anti-social behaviour problems. The cameras are linked to the local police station where the police are responsible for their monitoring (Wilson and Sutton, 2003).

New South Wales

New South Wales has 11 systems in operation making it the most observed state in Australia. The NSW State Government has provided little funding although there is support for use of the systems. The NSW Police service has developed some policy guidelines and addressed some operational issues and the Premier's Council on Crime

Prevention has formed an Inter-Departmental Committee on CCTV. These agencies are ahead of the rest of Australia where there has been very little involvement in planning and monitoring of the systems (Wilson and Sutton, 2003).

Currently there are systems in Blacktown (nine cameras), Bourke (four cameras), Dubbo (eleven cameras), Fairfield (twenty-three cameras), Lake Macquarie (two cameras), Lismore (eight cameras), Lithgow (three cameras), Sutherland (eleven cameras), Sydney (forty-eight cameras), Walgett (five cameras), and Willoughby (six cameras) (Wilson and Sutton, 2003).

Queensland

There has been a huge growth and support for the use of CCTV systems in Queensland. Local councils have used the experience of other system operators in the design of their systems and have established the Security Improvement Program (SIP) to monitor the systems and provide funding to establish Crime Prevention Through Environmental Design (CPTED) projects in public areas (Wilson and Sutton, 2003).

There are currently 10 systems throughout Queensland. Systems are operating in Brisbane (thirteen cameras), Cairns (sixteen cameras), Gatton (five cameras), Gold Coast (forty-one cameras), Ipswich (forty-four cameras), Logan (eight cameras), Rockhampton (four cameras), Toowoomba (forty-three cameras), and Warwick (twelve cameras) (Wilson and Sutton, 2003).

Victoria

There are currently 3 CCTV systems operating in Victoria with the State Government providing funding for one of the systems in Bendigo. Local councils monitor the systems with some monitoring overseen by the VIC Police Department. There are no guidelines in place for the use of CCTV in public places in Victoria (Wilson and Sutton, 2003).

Systems are currently operating in Bendigo (six cameras), Box Hill (ten cameras), and Melbourne City (twenty-three cameras) (Wilson and Sutton, 2003).

Tasmania

Tasmania has three systems operating in town centres all of which have been funded by the Tasmanian State Government. There are currently proposals for systems to be installed in Glenorchy, Dorset and Scottsdale (Wilson and Sutton, 2003).

There are currently three systems throughout Tasmania operating in Devonport (eight cameras), Hobart (seven cameras), and Launceston (five cameras) (Wilson and Sutton, 2003).

South Australia

There is currently one CCTV system operating in the State capital Adelaide. The system consists of thirty-three cameras that are monitored sixteen hours a day by the Police Security Services Division (PSSD) of the South Australian Police. When the system is not being monitored, it is recording. The Adelaide City Council and the State Government met the costs of establishment (Wilson and Sutton, 2003).

Australian Capital Territory

The ACT has one system operating in the city of Canberra. The system became operational in May 2001 and consists of 15 cameras. The cameras are on constant record and are monitored by the Australian Federal Police (AFP) from Thursday evening to Sunday morning. The public expressed concern about the Civic area so cameras were installed to help deal with problems of drug dealing, vandalism, drunkenness, general anti-social behaviour, and harassment. The cameras have undergone early reviews that show there has been a 19.3% overall decline in criminal incidents. This has meant that there has been a reduction in the number of police needed in the area freeing them up to undertake other duties (Wilson and Sutton, 2003). How the public feel about this reduced police presence is yet to be ascertained and would be an interesting topic for further research.

Northern Territory

There are currently no CCTV systems operating in the NT. Proposals have been forwarded to local governments in Alice Springs and Darwin (Wilson and Sutton, 2003).

Public Awareness, Perceptions, the Media and Police Issues

Public Awareness and Perception

CCTV is installed for many reasons. Reducing crime and combating anti-social behaviour are common reasons for installation as is the desire to reduce the public's 'fear of crime'. Decreasing the community's fear of crime has been the underlying motivation behind the installation of many open-street CCTV systems. In Perth the community was concerned about accessing the CBD, on account of its fear of rising crime rates, so the Perth City Council installed CCTV with the main purpose being to reduce the public's 'fear of crime'. The following statement made by the Perth City Council in its CCTV Information Kit summarises this:

“The closed circuit television system (CCTV) arose as part of a strategy responding to the continual media hype about street kids, violence and the alleged high level of crime in the city area. Whilst there was a problem of young people attracted to the City as part of a street kid subculture, the real facts of the situation were unknown and in most cases, they were misstated. There was however, a very real perception by a large part of the community that the City was not a safe area and violence was a continued aspect of daily life there (City of Perth, 2000; p.1-2)”.

There has been little public research following the installation of CCTV in Perth and the effectiveness or public perceptions of the system have not been clearly ascertained. There is a large body of literature looking at fear of crime, not in relation to CCTV, but crime generally (Valentine, 1989; Smith & Torstensson, 1997; Gabriel & Greve, 2003; Mugford, 1984; Gilchrist, Bannister, Ditton & Farrall, 1998; Gordon, Riger, LeBailly & Heath, 1980; Riger, 1981). Women's fear of crime research looks at many factors (such as police, lighting, environmental design) but does not focus specifically on CCTV.

Research on issues of public awareness and support for CCTV in public spaces shows that support is quite high. Brown (1995) conducted two surveys of members of the general public to find out their attitudes towards CCTV in a UK town centre. One survey

was conducted before the cameras were installed and the other after the installation. The study surveyed 700 people about prior victimisation and fear of crime. The study found that individuals who were aware of the cameras felt safer walking around the city centre at night after the cameras had been installed. For people who regularly visited the city centre at night, or for individuals who were not aware of the cameras, there was no effect.

Honess and Charman (1992) found similar results. Their results show that most people questioned, supported the introduction of CCTV into their local town centre. They found that support for CCTV is generally high. Between 85 per cent and 92 per cent of subjects in the three sites interviewed, claimed that they would welcome the installation of CCTV in that site. They also found the top three free responses from the public in relation to purposes were ‘security purposes’ (37%), ‘prevent crime’ (28%) and ‘general surveillance’ (18%). When participants were provided with a list of purposes they further chose ‘detect crime’, ‘prevent crime’ and ‘safety of the public’. 57% of participants responded that CCTV makes people feel safer. Participants were asked to rate how effective they thought CCTV was at meeting the purposes they identified. The results are shown in table 3 below.

Table 3

Effectiveness of CCTV

	Very Effective	Quite Effective	Not Very Effective	Not Effective
Crime Detection	150 (19%)	441 (55%)	154 (19%)	19 (2%)
Crime Prevention	104 (13%)	389 (49%)	213 (27%)	69 (9%)
People Feel Safer	94 (12%)	323 (41%)	202 (25%)	162 (20%)

Table 3 shows that the majority of participants thought CCTV was ‘very effective’ or ‘quite effective’ at crime detection, prevention and making people feel safer, however, 45% of participants thought that CCTV was ‘not very effective’ or ‘not

effective' at making people feel safer. Honess and Charman (1992) go on to rank order the perceived impact of CCTV on crime and disorder from two of the above categories: crime detection and crime prevention (or deterrent). For CCTV as a prevention, participants ranked (1) shop break-in, (2) sexual assault, (3) violent attack, (4) vandalism, (5) theft from a person, and (6) drunken disorderliness. For CCTV as detection, participants ranked (1) violent attacks, (2) theft from a person, (3) vandalism, (4) sexual assaults, (5) shop break-in and (6) drunken disorderly as the main purposes.

The authors further found that 92 per cent of the public believed CCTV was to 'catch criminals', 79 per cent to 'scare off potential offenders', 57 per cent to 'make people feel safer', 57 per cent to 'stop trouble', 39 per cent to 'check up on the general public', and 32 per cent to 'spy on people'. A further 74 per cent of participants thought that CCTV was effective in detecting crime and 62 per cent of those surveyed thought that it was effective at meeting its overall purposes (Honess and Charman, 1992).

Research by the Central Research Unit of The Scottish Office (1999) found similar results. They interviewed 3000 people in the city centre of Glasgow and found that 72% of participants believed CCTV cameras would prevent crime and disorder, 81% thought CCTV would be effective at catching criminals and 79% thought that CCTV would make people feel safer. They also found that 67% of participants did not mind being observed by the cameras. Further research in the UK has found that 67% of respondents are aware of CCTV, 80% had become aware because they had seen the cameras, and 11% had seen signage. In terms of purposes 91% of the public thought CCTV helps to apprehend criminals, 66% to deter criminals, 66% to make the public feel safer, and 45% to attract people to use the area (Mahalingham, 1996). These findings are supported by research in Australia (Bell, 1998).

Evaluations in Australia have shown that the public is aware of the CCTV systems. In Adelaide 58 per cent of the public surveyed were aware, in Fairfield 72 Per cent, in Sydney 77 per cent, in Melbourne 66 per cent and in Logan 57 per cent. An evaluation of the Sydney Safe City CCTV system found that 85.4 per cent of individuals aware of the cameras feel safer in the CBD. In Fairfield 61 per cent of those interviewed felt safer. However, in a Melbourne review, the cameras were found to have no effect on the public's feelings of safety (Wilson and Sutton, 2003).

Connell Wagner PTY LTD (2002) did an evaluation of the Perth CCTV system looking at public perceptions, purposes, impact of CCTV on fear of crime, and the assistance that the cameras provide to the police. They asked participants to rate how they felt (strongly agree, agree, undecided, disagree or strongly disagree) with various statements. 21% of respondents strongly agreed, 19% agreed, 3% were undecided, 7% disagreed and 3% strongly disagreed that they felt safer knowing the cameras were in use. A further 3% strongly agreed, 13% agreed, 3% undecided, 21% disagreed and 13% strongly disagreed that they were unaware that the city used public cameras.

When asked if they believed that additional public awareness would make the cameras more effective, 9% of participants strongly agreed, 26% agreed, 11% were undecided, 3% disagreed and 4% strongly disagreed that awareness would increase effectiveness. In a summary of the findings, the report states that the public believes that CCTV is used to reduce crime, make the public feel safer and help the police do their job. The research also found that participants were undecided if the cameras were the solution to the crime problem and that television and radio would be the best way to inform the public about CCTV. Furthermore, females are more likely to report feeling safer because of the cameras, than males.

Research in the Melbourne City Centre by Caraniche (2003) found that 66% of participants were aware of CCTV in the city centre. 83% found out about CCTV through word of mouth, 40% from signage, 23% from footpath markers and 28% through the media. They found that 55% of participants supported CCTV, 60% thought it made the central business district safer, 64% believed it helped the police, 58% thought it should be citywide, 33% believed it deterred crime, 16% thought it was a waste of money and 16% were outright opposed. A further 25% thought that CCTV was generally effective and 33% thought it would deter crime. When asked about the negative aspects of CCTV 50% of respondents believed that people do not like being observed, 30% believed some groups were unfairly targeted, 55% would rather see more police on the street and 34% held concerns about civil liberty. 78% of the offending sample interviewed said it did not alter their offending behaviour. They also found that those who felt less safe at night reported more support for CCTV. This relationship was strongest for women, the more unsafe they felt, the more they supported CCTV.

Further public support for CCTV is provided in a study by Bennett and Gelsthorpe (1997). They interviewed 713 participants and found that almost two-thirds (64%) of respondents thought CCTV was a good idea. Their findings also show sex and age differences in responses. They reported that women are more likely than males to think that CCTV in public spaces is a good idea (72% compared with 60%). Females were also more likely to think that CCTV is more effective than males in terms of its effectiveness. They found that older people are significantly more likely to say that CCTV is effective than younger people (78.8% compared to 58.5%). Honess and Charman (1992) provide further support for gender differences. Their findings show sex differences in responding. Women are more likely to endorse statements like ‘the more of these cameras we have the better’ and ‘people who control CCTV can be trusted’. They also found that men are more likely to be aware of the cameras than women (42% compared with 25%). This may be attributed to women’s unfamiliarity with the technological aspects of CCTV (Brooks and Smith, 2003).

Honess and Charman (1992; p.25) note “public acceptance is based on limited, and partly inaccurate knowledge of the functions and capabilities of CCTV systems in public spaces”.

This is not to say that there are not public concerns and civil liberty issues. A study by Liberty (1989) found that members of the public thought that access to the recorded material should only be allowed by the police (93%), the courts (83%) and the public (48%). Bennett and Gelsthorpe (1997) raise four main concerns or drawbacks associated with the installation of CCTV in relation to public perception. These are “effectiveness, misuse, image and unintended consequences” (Bennett and Gelsthorpe, 1997; p.74-75). The first of these problems relates to the public’s belief that the cameras actually reduce crime when they may not. Concern is also raised about the fact that the cameras might actually “increase public fears by identifying particular spots as known ‘trouble spots’” (Bennett and Gelsthorpe, 1997; p.74) therefore reducing the number of people who access the area. The second concern relates to the misuse of the system by those in control. Concern is raised over the possible use of the system to move undesirables from the area through screening particular individuals out.

This is supported by the results of a study by Honess and Charman (1992; p.9) where public discussions showed that the public was concerned that the cameras “could easily be abused by the wrong people” (72%), that the people in charge of the cameras “could not be completely trusted to use them only for public good” (39%), and that “in the future, cameras will be used by the government to control people” (37%). The third concern raised by Bennett and Gelsthorpe (1997) is the overall image of CCTV in public spaces. Here the public has raised ‘quality of life’ concerns claiming that this would be affected by knowing that they are being watched. The fourth concern relates to unintended consequences of the installation of CCTV into public spaces. Issues of ‘bystander intervention’, ‘diffusion of responsibility’ and feelings of false security are raised. There are also concerns that the financial costs to install CCTV surveillance could be better spent on a more visible police presence and improved city lighting (Wilson and Sutton, 2003). These public concerns are very important and many are raised and supported by the media.

There have been policy disagreements about whether the installation of CCTV is to reduce the public’s ‘fear of crime’ or to actually reduce a statistically proven crime problem. In Australia, local authorities are in disagreement. “In New South Wales the guidelines advise that cost is likely to outweigh benefits where a problem is not confirmed by crime statistics” (Wilson and Sutton, 2003; p.15). In contrast to this, “the Queensland government guidelines suggest that CCTV might still be appropriate to address the public’s ‘fear of crime’, even where such perceptions are not firmly supported by crime data” (Wilson and Sutton, 2003; p.15). With little research looking into such issues it is hard to confirm in what situations CCTV will be effective and in what circumstances it will not.

Gender Issues

When research deals with fear of crime and victimisation, it often refers to the role women play and often assumes that women welcome all forms of crime control strategies (Brown, 1998). Research shows gender differences in perceptions. Bennett and Gelsthorpe (1997) interviewed 713 participants and found that almost two-thirds (64%) of respondents thought CCTV was a good idea. They reported that women are more likely than men to think CCTV in public spaces is a good idea (72% compared with

60%). Females were also more likely to think CCTV is more effective than males. They found that older people are significantly more likely to say CCTV is effective than younger people (78.8% compared to 58.5%). Research by Honess and Charman (1992) provides further support for gender differences. Their findings show sex differences in responding and that women are more likely to endorse statements like 'the more of these cameras we have the better' and 'people who control CCTV can be trusted'. They also found that men are more likely to be aware of the cameras than women (42% compared with 25%). Further research is needed in Australia and elsewhere to determine gender perceptions of safety in areas with CCTV. The proposed research project aims to extend the literature available by expanding on previous research and focusing on women's perceptions.

Media

Media reporting of crime has been a key factor for the introduction of many CCTV public space systems. Media reporting of incidents and the public's awareness and concern over crime issues has motivated the increase in use of CCTV. The installation of CCTV in Perth in 1991 is an example of the media push behind public concerns as is the negative press in Melbourne in 1995 (Wilson and Sutton, 2003). Research into public awareness of violence showed that 88 per cent of the public questioned had heard about the violence around King Street from the media. This extensive media coverage about the King Street area of Melbourne's CBD and its violence prompted the installation of 10 CCTV cameras as part of the local council's Westend Project to reduce the negative image portrayed by the media (Wilson and Sutton, 2003). Constant media coverage of an area may stimulate pressure that 'something must be done' by local authorities. CCTV appears like the perfect response as it is high profile and will receive as much media coverage as the initial crime problem did (Wilson and Sutton, 2003). This provides the public with evidence that the local authorities are doing something and responding to their concerns.

The media also play an important role after a public CCTV surveillance system has been installed, as it is well documented that publicity affects crime rates. Research shows that CCTV may be effective in its first year after installation but that over time these results decline (Webb and Laycock, 1992). Public awareness is important if CCTV

surveillance is to remain effective. Tilley's (1993) research of car parks shows that in order to remain effective, CCTV systems and their effectiveness need to be regularly publicised. Ditton and Short (1999) compared two Scottish CCTV systems and recorded the difference between the little town of Airdrie where the system was well publicised by the local media and the larger city centre of Glasgow where between only one quarter and one third of the population knew about the installation of the system one year later (Wilson and Ditton, 2003). The same results have been noted by Wilson and Sutton (2003) in Australia. They note that there are higher levels of public awareness due to media coverage in the regional location of Devonport than in the Melbourne CBD. While there may be high profile media coverage with the installation of CCTV, the system operators need to develop and maintain strong media policies in order to help the system to remain effective.

The Police and CCTV

Brown (1995) reports the police use CCTV in town centres for a wide variety of reasons including both crime prevention and detection. The primary use of the surveillance systems is as a patrolling tool to respond to incidents as they occur. This information allows the police to coordinate suitable responses and therefore allows for the effective use of police resources in these areas. The cameras help to improve communication networks between camera operators and police officers on the beat. These networks include radio systems, pager systems and phone links. The police can alert the control room operators to an incident and then the incident can be monitored from the control room or the operators may notice an incident and notify police on the ground who can then respond effectively. Once an incident has come to the attention of officers and control room staff the cameras can be used to monitor and record the offence thus providing evidence and possible witnesses. The recordings are also useful if the operators failed to notice an incident. The recorded images can be used by the police to follow up on an incident and identify those involved. The tapes carry information about the time, date and location that can be used by the police. These tape recordings are useful to reduce court proceedings as the evidence may motivate offenders to plead guilty.

The cameras also play a role in proactive policing, helping to identify potential problem situations that can be dealt with before they escalate. The cameras are generally placed in locations where problems or anti-social behaviour frequently occur or where there is a potential for serious crimes to take place. This helps the police to reduce the likelihood of a small problem getting out of hand and creating problems for the public.

The police can also use the cameras to respond to particular operations that have been set up in camera locations, or the cameras may be installed as a response to serious offences, as was the case with the abductions from Claremont. This is an effective tool for the police to enable them to actively monitor an area without needing to be physically present on the street.

Public space CCTV surveillance systems also allow the public to monitor the police service and hold them accountable for their behaviour. The police see this as a key problem as CCTV not only watches the public it also watches them. This has increased the quality of street policing as there are no longer problems of police accounts of what occurs on the street, and the realities of street policing as seen by the public and offenders. CCTV can be used as a management tool to place street policing under greater managerial scrutiny and provide an independent record of what occurs on the street. This can help to improve the quality of policing. Norris and Armstrong (1999; p.82) note that in certain areas the “number of complaints against the police declined with the installation of CCTV”. This may also work the other way for situations where offenders are accusing police of inappropriate behaviour.

Criticisms of CCTV Surveillance

The positive outcomes of CCTV in public spaces have received more research attention than the negatives associated with its installation. However, in the course of researching many researchers have found possible drawbacks, which could be the result of CCTV. The literature identifies six main criticisms of CCTV in the public domain: (i) the displacement of criminal behaviour; (ii) the deterrent effect of CCTV reduces over time; (iii) monitoring and evidence gathering limitations; (iv) the idea that there is an optimal level of surveillance; (v) the effect that CCTV reduces the number of police

officers on the street and therefore reduces community interaction; and (vi) that CCTV is a violation of civil rights (Allard, 2003).

Displacement

The literature points to displacement as being the primary criticism of CCTV claiming that CCTV does not deter crime but merely displaces or moves the crime into surrounding areas. Six types of displacement are commonly recognised (Gabor, 1990, Barr and Pease, 1990). These are:

- temporal displacement – this relates to the time when an offence occurs;
- spatial displacement – this relates to offenders moving the location of offending due to the introduction of crime prevention techniques, such as CCTV;
- target displacement – the offending target changes;
- method displacement – the offending method alters in relation to offending against particular targets;
- crime type displacement – the category of offending changes;
- perpetrator displacement – old offenders are removed by a crime prevention initiative and are replaced by new offenders.

Spatial displacement is the primary displacement discussed in relation to CCTV. Critics of CCTV have argued that spatial (geographical) displacement undermines the possible benefits from surveillance cameras in certain areas. While some research has found no evidence of spatial displacement (Armitage, Smyth and Pease, 1999); Brown, (1995) and Webb and Laycock (1991) and others have reported that displacement is extensive to areas surrounding the CCTV area (Short and Ditton, 1996; Tilley, 1993; Skinns, 1998). Brown (1995) reports that robbery and car crime are more likely to be displaced to surrounding areas while other researchers have found increases in some types of offences (Short and Ditton, 1996) and decreases in others (Poyner, 1992). This may show that crime type displacement may also take place. A quote made by Sharp summarises displacement. In an interview with 20/20 he said, “certainly the crime goes somewhere. I do not believe that just because you’ve got cameras in a city centre that

everyone say's "oh well, we're going to give up crime and get a job"(cited in Davis, 1996; p.330).

This is UK based research, as little research in Australia (due to the lack of it) has found any displacement, although research in other countries suggests that it is common. Wilson and Sutton (2003; p.96) point out that two considerations need to be taken into account when discussing displacement. These are:

- "displacement is not necessarily considered a negative outcome by system managers and police; and
- while there is widespread evidence of displacement it is unclear whether there is 100% displacement of offending".

They go on to report that street level drug dealing is the most likely offence to be displaced and that this can have some positive benefits. "Cabramatta Police deliberately encouraged displacement in the belief that smaller, dispersed markets would be easier to control" (Wilson and Sutton, 2003; p.96). However, they also report that this could have adverse effects for surrounding areas where drug dealing did not occur but now takes place due to the displacement of the offence. This could work in the reverse and offending may move to areas not regularly used by the public where police can contain the problem.

Other studies in the community have noted some diffusion of benefits of CCTV to surrounding areas where there are no cameras (Armitage, Smyth and Pease, 1999; Poyner, 1992). These effects have been found for criminal damage, theft from motor vehicles and burglary, where the benefits extend beyond the area under surveillance into nearby areas. In an evaluation of CCTV systems Welsh and Farrington found more evidence for diffusion of benefits than they did for displacement. To determine the actual effects of displacement and diffusion of benefits more research is required.

Effects Reduce Over Time

Another criticism of CCTV is that although it may reduce offending immediately after installation these effects fade over time. Brown (1995; p.23) reports that "evidence shows initially the presence of CCTV cameras within Newcastle city centre had a strong deterrent effect on the incidence of a number of offences" but that this began to fade over

time. Brown reported similar results in Birmingham and Kings Lynn. Similar results were reported by Squires (2000) in a follow-up study of the Crawley surveillance system. Six months after installation it was reported there was a 20 per cent decrease in the number of total crimes. Two and a half years after installation it was reported that all offences had increased by 30 per cent compared to before installation and 45 per cent in comparison to six months after installation. Findings by Armitage, Smyth, and Pease (1999) confirm that positive benefits are experienced immediately after installation but these effects fade over time.

It was discussed earlier that the media play an important role in the maintenance of positive benefits. With high profile media reporting the fading effect can be reduced.

Monitoring and Evidence Gathering Limitations

CCTV is associated with various monitoring and evidence gathering limitations. Problems for operators are commonly noted as they are bombarded with images for 12-hour shifts resulting in slowed reactions, loss of vigilance, and drowsiness (Kyle and Aldridge, 1992). There are arguments that operators cannot possibly filter the number of images and are likely to selectively target individuals or particular social groups. It has been found that there is an over-representation of individuals who are young, black, male, drunk, or homeless (Kyle and Aldridge, 1992). The identification of individuals committing offences is ad hoc and offenders will only be noticed if officers observe the incident and recognise it as offending behaviour (Kyle and Aldridge, 1992). Issues of operator accountability are also raised, as their power is highly discretionary.

Other problems are associated with limitations caused by vision. Environmental conditions and camera angles mean that fog, snow and the existence of blind spots create areas not covered by CCTV. Offenders have reported that they can avoid been seen by the CCTV cameras and continue to offend regardless (Short and Ditton, 1998).

Optimum Level of Surveillance

Another issue raised by the installation of CCTV is the amount of surveillance necessary and when does surveillance become too much? It has been reported that there is an optimum level of surveillance and that a balance needs to be maintained. The amount of surveillance required will depend on the size of the location and the amount of offending taking place but this needs to be taken into consideration before the system is

installed. Ward (1987) has claimed that there may be a self-fulfilling prophecy and if the amount of surveillance exceeds certain levels offending will actually increase. There are also issues of public acceptability and 'fear of crime' where over-surveillance may actually deter members of the public from accessing an area.

Reduction in Police and Community Interaction

Another criticism of CCTV is that it reduces the number of Police officers on the street and therefore reduces the amount of interaction between the police and community members. CCTV operators monitor the screens and when an incident is located they call the police who then intervene rather than higher numbers of police being on the street looking for offending incidents themselves. There are several consequences of reduced interaction between police and community members. Police presence fosters a positive relationship between the police and the public and creates feelings of safety and security in the community. CCTV may reduce this effect, as it is non-interactional and may make community members feel isolated. Community contact with the police is very important if positive relationships are to be fostered and for the public to feel psychologically secure.

Violation of Civil Rights

The effect of CCTV in community settings on civil liberties has been the subject of much debate and community concern (Wilson and Sutton, 2003). Criticisms of CCTV in community settings have centered on the invasion of privacy principle and that CCTV restricts personal freedom. CCTV invades individuals' privacy as they have not consented to the use of CCTV and will be recorded going about their everyday business by operators who are largely unregulated, and invisible (Bennett and Gelsthorpe, 1996). Signage is posted in some town and city centres warning the public that they are under surveillance, however this is not a compulsory measure (Bennett and Gelsthorpe, 1996; Honess and Charman, 1992; Painter and Tilley, 1999). Community concern is also raised over the threat that CCTV poses to individual free association (Honness and Charman, 1992). It has been shown that CCTV can be used as a tool to marginalise certain individuals and remove them from city centres or that certain individuals are targeted by CCTV operators based on their appearance. It can be argued that CCTV could be used as

a mechanism to make public areas semi-private by removing those individuals who are seen as undesirable thus promoting prejudice and discrimination.

Despite the potential for CCTV to negatively impact on civil liberties there is overwhelming evidence that the public supports the use of CCTV in public spaces. When the public does express concern it is over operator accountability or abuse of the system, discrimination and target selection, general unease about being watched and recorded, inequality of policing across social groups, misleading information due to poor picture quality, sound or environmental conditions. There is also fear that the use of CCTV increases the control that the public gives to the state (Bennett and Gelsthorpe, 1996).

Conclusion

CCTV can be viewed as “one element within a highly complex set of strategies aimed at creating an urban environment in which public behaviour, perceptions and conduct can be influenced and in some sense manipulated to satisfy commercial and instrumental ends” (Reeve, 1998; p.43).

The introduction of photo scan technology in 1967 meant that CCTV surveillance systems became affordable and since the 1990's there has been an exponential growth in the number of CCTV systems used around the world with the UK leading the way in installation and research. The wide spread use of CCTV can be linked to rising modernity and needs to be placed in a social and political context. The use of CCTV has changed the face of policing and has even been dubbed the “crime prevention initiative of the century” (Norris and Armstrong, 1999; p.56).

Research in the community shows that CCTV is used to prevent and deter crime, detect crime, gather evidence, increase arrest rates, reduce the public's fear of crime and as a general site management tool. Research results have been inconsistent and the findings of the effect that CCTV has on crime are ambiguous. Research suggests that between two-fifths and one-half of offenders are deterred from committing crimes in the community due to CCTV. Longitudinal research of before and after effects is also inconclusive. Despite inconclusive research results, CCTV surveillance systems are currently operating in the UK, France, Germany, Netherlands, Finland, Monaco, China, Singapore, United States of America, Canada, South Africa, New Zealand and Australia.

There is very little research available in Australia. The first CCTV system in Australia was installed in Perth in 1991 and today there are 33 systems operating in most Australian states and territories. Surveillance systems have been installed by local councils with financial support being provided in some instances by State Governments. More research is needed in Australia to determine the effectiveness of CCTV surveillance systems, public perception and to help produce guidelines and appropriate legislation.

Research on public perception shows that the public is aware of the cameras and supports CCTV surveillance installation. Some gender differences in awareness are reported with men being more aware of the cameras and women offering more support for their introduction in public spaces. The literature also shows that CCTV cameras help to reduce the public's 'fear of crime'. The public also express civil liberty concerns.

The media play an important role in portraying the public's concern about increasing levels of crime in the community and in supporting the installation of CCTV. The media also have a role in providing on-going publicity to help sustain the positive benefits of CCTV over time.

The police use CCTV for a wide variety of purposes including crime prevention and crime detection. CCTV has allowed police officers to play a more pro-active role in the community. CCTV gives the public a means to monitor and manage police behaviour on the street.

There are many criticisms of CCTV including displacement, fading effects, monitoring and evidence gathering limitations, optimal level of surveillance, reductions in police and community interaction, and violation of civil rights. These criticisms are important to recognise, however more research needs to be conducted to determine the level of effect they have on communities.

The literature available on CCTV in open-street settings is inconclusive and suggests that CCTV works to reduce crime in some situations but not in others. Future research needs to focus on identifying the circumstances in which CCTV is effective and ineffective so it can be determined when CCTV should be introduced and under what conditions. It is likely that CCTV will produce positive outcomes in some settings and not in others where other situational crime prevention methods would best be introduced. CCTV will affect the local community and it is important that more research is carried

out on public perceptions of CCTV's effectiveness in specific locations. The research available on public perceptions has dealt with awareness and attitudes but there appears to be little research on public reservations, or other crime prevention techniques they believe would be more effective. It would also be interesting for research to focus on how CCTV affects the everyday behaviour of members of the public and if it does in fact promote diffusion of responsibility and reduced by-stander intervention in emergencies. Future research could also focus on the role the police play with CCTV and how CCTV affects the way they perform their job knowing that they are also being recorded.

Further research is needed if CCTV is to live up to the claims that it is one of the major breakthroughs in crime prevention strategies today.

FEAR OF CRIME

c) Fear of Crime

Introduction

The body of literature on fear of crime has grown extensively since the 1960's and has emerged as one of the most influential and important issues worldwide. The problem of the community's fear of crime is almost as serious as the crime dilemma itself. It is "common place to assert that fear of crime has become a major social and political problem, perhaps bigger than crime itself" (Gilchrist, Bannister, Ditton and Farrall, 1998; p.284). This growth in attention has stemmed from the increasing use of household national crime surveys in the USA and elsewhere in the world. These national crime surveys have been further supported by local crime surveys which show the public have an increasing fear of crime (Hale, 1996). Fear of crime research is important as it is used as evidence to justify political measures to reduce crime. Fear of crime research underpins crime reduction and political decisions and justifies the spending of public finances on things like environmental design, improved street lighting and closed circuit television cameras.

Much of this research has focused on the multidimensional nature of crime and puts fear of crime within socioeconomic, gender, geographical and age related frameworks that are associated with perceptions of local problems (Carcach & Mukherjee, 1999). The fear of crime literature shows that women and the elderly have a disproportionate fear of crime relative to their victimisation rate and the literature focuses on this paradox. This theme will be discussed throughout the section below.

Fear of crime and its measurement will be discussed, as this is a central argument raised in the literature. The literature centres on the lack of agreement and confusion in the measurement of fear and attributes the lack of consistent findings to this inconsistency.

Fear of crime literature, theoretical underpinnings and empirical evidence behind fear of crime and the links between victimisation, experience of crime and fear will be discussed.

The strategies for reducing fear of crime in today's communities will also be explored.

Fear of crime and its measurement

As noted above the measurement of fear of crime plays a central role in the literature and is blamed for the lack of clarity in findings. The main problem seems to be a lack of definition or measurement between risk evaluations, worry and fear and that studies in the area may be measuring one or all of these three things without defining what they are measuring. There also appear to be problems with the way fear is conceptualised, as an enduring trait which some people possess and others do not. This reduces the ability to give “detailed consideration of the ephemeral, transitory and situational nature of fear” (Fattah and Sacco, 1989; p.211). There is also the problem of research in this field solely relying on quantitative surveys to collect information. The literature seems to point to the lack of clarification of this topic, as the researchers main problem, with it being defined as a social problem which limits the scope and does not clearly differentiate between fear and caution or fear and worry. Definitions of fear of crime range in the literature and which definition is used appears to depend on the nature and scope of the particular study. Gabriel and Greve (2003; p.601) define fear of crime as “an individual’s fear of personally becoming a victim of crime”. This is the definition adopted for this paper.

In terms of measurement the majority of studies have used a ‘global’ measure, called this as it is a general question that does not specifically refer to crime and is a single item indicator of fear (Hale, 1996). ‘How safe do you feel being out alone after dark’ is an example of such a question. It is argued that these types of questions do not measure an emotional reaction to crime, as they are too general and that they may measure aspects other than the fear of personal attack as crime itself is not specifically mentioned (Taylor and Hale, 1986).

“A person who says he or she would not feel very safe may not be afraid at all, but simply aware of the relative risk. Thus, such a person may avoid walking alone in their neighbourhood at night and not really manifest any fear of crime (Ferraro and LaGrange, 1987; p.76).

Some researchers have attempted to move away from subjective measures by asking participants to define particular areas or crimes they fear. ‘Is there any area around

here – that is within a mile – where you would be afraid to walk alone at night?’ is an example of such a question. Farrall, Bannister, Ditton and Gilchrist (1997; p.674) state “the social, temporal and geographical aspects of the fear of crime could be measured by asking respondents if any of the specific locales in the area in which they live are ‘unsafe’ during the day or night...” Other researchers have tried to combat this problem by specifically referring to particular crimes or by putting general questions under the heading ‘Now I’d like to get your opinion about crime in general’, which helps to reduce this problem.

Other issues raised by the literature relate to the interpretations people give to things like the term neighbourhood and being out alone. It argues that the term neighbourhood is open to interpretation and that many questionnaires ask people to think about being alone at night which is something that they may very rarely do. However, despite all of these problems responses to these types of questions continue in studies of fear of crime (Borooah and Carcach, 1997).

Some attempts have been made to link fear of crime to the broader conceptual framework of quality of life. Here an attempt is made to link object aspects and subject aspects to fear of crime (Skogan, 1976, cited in Hale, 1996). Others have distinguished between ‘concrete fear’ and ‘formless fear’ (Garofalo and Laub, 1978). Concrete fears refer to fears of acts of violence against the person and formless fears refer to some vague notion of a threat to one’s person. Concrete fears are measured by asking respondents to rate the extent of their fear of being a victim of certain offences and formless fear is measured by using the global measure mentioned above.

Still others have tried to clarify the operational definition of fear of crime by not only focusing on the emotional response but also on the physiological response (Hale, 1996). Fattah and Sacco (1987) suggest grouping measures into three broad categories (1) cognitive, (2) affective and (3) behavioural. Farrall, Bannister, Ditton and Gilchrist (1997) support this and state:

“Fear of crime could be fruitfully measured as a multi-faceted phenomenon. This will allow for a greater conceptual understanding of the fear of crime. This will mean asking questions that in future in addition measure emotional, cognitive and

affective elements of it. From our initial research we suggest that one avenue researchers should explore is the extent to which a respondent thinks about a certain crime, how afraid of it they are and how angry they feel when they think of it happening to them” (p.672).

Hale (1996) says “cognitive measures are those that attempt to measure fear by establishing respondents’ beliefs regarding the extent and likelihood of crime victimisation” (Hale, 1996; p.89). This requires the participants to assess whether they think it is likely that they will become the victim of a particular crime. Affective measures are those that ask about worry or fear of specific offences and questions relating to formless fears. According to Hale (1996) “affective, unlike cognitive measures, do not have an ‘objective’ external reality with which they can be compared” (Hale, 1996; p.89). Behavioural measures are measured by recording respondents’ physical actions. Hale (1996) states “advocates of the use of behavioural indicators would stress that what people do is a better guide to their level of fear than what they say” (Hale, 1996; p.90).

As well as grouping measures, researchers have tried to study the area by using methodological triangulation. According to Farrall et al (1997) “methodological triangulation is an appropriate response to the identified fear of crime problems” (p.660). and according to Hale (1996; p.92) “good social investigation benefits from methodological triangulation; different research approaches have different strengths which are complimentary”. By using qualitative and quantitative approaches, the research is strengthened and allows a broader picture to be developed.

Ferraro and LaGrange (1987, cited in Hale, 1996; p.93) make some recommendations as to how to improve the inadequate measures so often used in fear of crime research. The following is taken from their recommendations:

1. Fear of crime measures should not measure concerns or judgments about crime but should measure emotional states of fear. Other questions should be included that measure risk assessment, concern and behavioural elements of crime.

2. Explicit reference should be made to specific crimes when measuring fear of crime.
3. Questions should be based in reality and apply to the sample. They should not be hypothetical and should apply to ordinary situations that are in the everyday life of participants.

Some of the literature has met these standards and others have not. What is clear is that there is a growing body of literature on fear of crime and there are some clear findings which attempt to explain why people fear and under what circumstances.

Fear of Crime – the literature

Research in Australia shows that 70% of women fear attacks after dark and that fear of violence restrains women's social activities (James and Embrey, 2001). Borooah and Carcach (1997) found that women are over six times more likely to feel unsafe when walking alone after dark than men. Gordon, Riger, LeBailly and Heath (1980) interviewed 299 women in Chicago, Philadelphia and San Francisco and found that 49% of women felt very unsafe or somewhat unsafe in their cities and that 48% of women "think of their own safety all or most of the time" (p.147). The literature shows that people feel safer during the day than at night, city centres are considered unsafe or very unsafe at night and female respondents feel less safe than males, particularly after dark in their neighbourhoods and in city centres (James and Embrey, 2001).

The literature shows that all women are fearful in public space and that this fear outweighs the official records of victimisation. The literature suggests that women are fearful of public space as it is segregated "through time, according to age and gender" (Valentine, 1989; p.388). At night, there is a shift in the kind of people who use public areas and the behaviour of these strangers is perceived to be unpredictable, threatening and induces feelings of fear (Valentine, 1989). Women are found to be more fearful in places where they believe the public's behaviour to be unregulated and unpredictable (Valentine, 1989).

Valentine (1989) suggests that "when a woman is in an area beyond her local environment she makes judgments about her safety in public space on the basis of

preconceived images she holds about that area and its occupants, as well as from cues she receives about social behaviour from the actual physical surroundings. For example signs of incivility such as vandalism and graffiti suggest inappropriate or threatening behaviour is possible or permitted, whereas signs of care such as neat, litter free streets suggest the opposite” (Valentine, 1989; p.388).

Australian and International research shows that women are more fearful of particular situations including: “any mode of transport other than a car; going out at night; walking to the nearest shops; use of public transport, in particular train travel at night; the use of a public telephone; and walking to a friend’s house. Women are also fearful of walking through a neighbourhood park or walking home from the cinema, restaurant, bar or pub. Women worry about the situation at either end of a public transport journey i.e. waiting at a bus stop or walking from the station to a parked car; the use of city centre car parks particularly at night and if multi-storey; driving alone at night; and open spaces (parks and the countryside) and pathways (alleyways and underpasses)” (Bell, 1998; p.3). Sarno, Hough and Bulos (1999) found that 51% of respondents fear violent attack, 23% robbery/mugging, 13% theft of or from a vehicle, 6% theft of bag or pick pocketing and 3% drug dealing and drug use. They also found that a greater average of over 65s (93% compared with a sample average of 80%) were worried about violent robberies and thefts from the person. They further found that participants felt safer during the day than at night. 87% of respondents felt safe during the day compared to 64% at night with females feeling more unsafe than males in the evening (55% versus 47%).

Research in Australia shows that women’s concern for their safety increases after midnight, when there is poor lighting, when they are in isolated areas such as car parks, when there is a lack of legitimate pedestrian activity and when there is an isolated taxi rank. Women are also more concerned when there is no visible security surveillance, walking down laneways or crossovers which are dark and poorly maintained, in parks and when there is poor signage (City of Perth, 2002).

Many theories have been put forward to explain women’s fear of crime and to try to answer the question of why women’s levels of fear are so high in comparison to their victimisation rate. These theories are discussed in the section below.

Explaining fear of crime

The literature points to four main theories to explain fear of crime. These are vulnerability (e.g. Killias 1990; Killias and Clerici 2000; Warr 1984), which includes physical vulnerability and social vulnerability, victimisation and past experience of crime (e.g. Hale 1996; Winkel 1998), environmental factors and psychological factors, which constitute risk perception (e.g. Ferraro 1996). “The effects of covariates such as age, gender, perceived risk, perceived seriousness (of offence in question), and community disorder have been shown to influence distinct crime specific fears differentially (e.g. Ferraro, 1995; LaGrange et al, 1992; LaGrange and Ferraro 1989; Warr 1987; Warr and Stafford 1983). Each of these factors is briefly discussed below.

Vulnerability

The literature identifies three main categories that fall under the vulnerability heading. These are gender, age and socioeconomic status. Killias (1990) states that vulnerability “entails three major dimensions: exposure to risk, loss of control and seriousness of consequences” (p.98). Individuals who fall into these three main categories are perceived to be more vulnerable to crime and victimisation due to their physical, psychological or economic condition (Killias, 1990).

Gender

Gender is consistently found across all fear of crime literature to be a significant factor regardless of age, social class and geographical location. Research into gender differences in fear of crime has focused on why women are more fearful of victimisation than men are when they are less likely, according to crime statistics, to be offended against (Hale, 1996).

Sacco (1990) points to two broad theories in the literature that account for this apparent paradox. The first argues that official crime statistics are unreliable and do not present a clear picture of the victimisation of women. If the true extent of the victimisation of women were known their fear would not seem irrational. The second theory is grounded in the tradition which differentiates between perception of risk and fear. It claims that women’s greater fear stems from a heightened perception of risk (Hale, 1996). Others point to socialisation as an explanation for the gendered differences

between men and women. Within the first of these theories, there are some variations. These are discussed below:

1. The underreporting of crimes like sexual assault and rape lead to a disproportionate view of women's fear, as these crimes are not correctly recorded in victimisation surveys of women. Underreporting of crimes by women and the elderly is one explanation for high levels of fear. If the true rate of victimisation were known this disparity may not appear so irrational (Sacco, 1990).

2. The fear of rape and sexual assault may influence women's fear as women have higher rates of victimisation of offences of this nature (Sacco, 1990; Riger, 1978). In a study of Seattle residents Warr (1985) surveyed 181 women and 158 men about their fear of particular offences. He found that fear of rape was high among all women in the sample with means ranging from $M=6.98$ for younger women (under 35) to $M=4.89$ for elderly women (60+). He found that those in the 19-35 age group feared rape more than murder, assault and robbery and that the "high fear of rape stems from (1) that the crime is perceived to be extremely serious, and (2) unlike most other serious offences, it is perceived to be relatively likely" (Warr, 1985; p.243). Ferraro's (1996) findings support the above showing that younger women are more afraid of rape. His results show that women in the 18-24-age range expressed the highest fear of rape ($M=7.37$) while women in the 65-74-age range expressed the least fear.

The "perceived risk of rape, attack and vulnerability are substantial components of women's fear" (Gordon, Riger, LeBailly and Heath, 1980; p.151). Ferraro (1996) claims "rape may operate as a 'master offence' among women, particularly younger women, who have the highest rate of rape, heightening fear reactions to other offences" (p.670). According to this, women are afraid of all victimisations and this fear is underpinned by the perceived risk of violent offences (rape) in women's everyday lives. Overrepresentation and sensationalisation of crimes of this nature may also contribute to women's fear (Ditton and Duffy, 1982, cited in Gilchrist, Bannister, Ditton and Farrall, 1998).

3. That women's lifestyles lead them to be less exposed to the risk of victimisation and if this were taken into account and victimisation rates adjusted,

women's fear would be better accounted for. There is little support in the literature for this argument.

4. There is a wide range of overt or hidden violence (domestic and sexual) against women that does not appear in official statistics (Carcach and Mukherjee, 1999). Because of this, women are more afraid as they face more threatening situations in their everyday lives. "Women experience a range of offensive behaviours directed at their sexuality, which they may perceive as victimisation but which would not necessarily be deemed 'criminal' which, nevertheless, profoundly shapes women's lives creating a very different social reality for women than for men" (Painter, 1992; p168-169). Painter (1992) has found that almost three times as many women than men report some form of 'general harassment' (shouted after, followed, spoken to, touched or held, visual or verbal contact). This may account for higher fear. Because of these various forms of harassment and lower level victimisation women feel more vulnerable and are frequently reminded of their susceptibility to attack (Smith and Tortesson, 1997; Stanko, 1990).

Sacco (1990) points out that all these variations in the literature are:

"...inattentive to the dynamics of the processes by which experiences with crime produce fear...A variety of emotional and behavioural reactions (to crime) are possible, and fear represents only one possible adjustment...To produce fear (rather than for example, anger or outrage), the meaning of victimisation events must be construed in particular ways." (Sacco, 1990; p.490).

Sacco's own work completely adopts the definition that fear of crime is associated with particular crime experiences whereas the current shift in the fear of crime literature by feminist researchers places "fear within women's broader experiences of a male dominated society" (Hale, 1996; p.98).

Another broad theory identified in the literature relates to women's physical vulnerability and claims that women are likely to experience fear because of this. Some researchers claim that women are more vulnerable than men, less able to physically defend themselves, and less able to cope with victimisation (Baumer, 1978; Riger et al. 1978; Balkin 1979; Warr 1985; Stanko 1990; Carcach and Mukherjee, 1999). This is supported by Riger and Gordon (1981) who found that women who perceive themselves as less physically fit were more likely to report feeling fearful.

Warr (1984) shows that women judge potential victimisation situations more seriously than men and Smith and Tortensson (1997) found that the greater vulnerability of women leads them to perceive risk more frequently.

Women are often reminded of their vulnerability in public, and are exposed to much greater levels of risk from some kinds of crime (sexual assault) than are men reinforcing the serious consequences of crimes of this nature and increasing levels of fear (James and Embrey, 2001; Walklate, 1997 and Warr, 1985). The treatment of female victims in criminal proceedings is raised in the literature. Placing blame and focusing on how women present themselves in public all reinforce the fear of victimisation (Stanko, 1990).

Socialisation theories of a gendered society, women's roles and relationships to men and the socialisation of the genders are important in explaining this behaviour. Women are socialised into vulnerability by being taught to be passive and being discouraged from risk taking in their preparation for a role inside the home (Bell, 1998). Men on the other hand are encouraged to be risk takers and to be involved in the public realm. Women are taught to be fearful of the 'boogie man' and "fear of violence at night, whether perceived or real is also ingrained in women from a very early age" (Henderson, 1993; p.44-45). Despite the fact that statistics on rape and attack show that women are more at risk at home from men they know, women learn to perceive danger from strangers in public places due to the socialisation process (Valentine, 1989). Further research needs to be conducted looking at the link between the socialisation process and the development of fear in girls and the lack of fear in boys.

Age

There is a large body of research on the elderly and fear of crime, which shows the elderly are more fearful, and their fear influences their quality of life. The research generally shows that as people age their fears of crime increase, as they are less able to defend themselves, are more vulnerable, and that crime can have severe effects on their life (Carcach and Mukherjee, 1999, Stafford and Galle, 1984; and Todd, 1981).

Carcach and Mukherjee (1999) found that women over the age of 55 experience more fear in all circumstances, Borooah and Carcach (1997) found older women to be more fearful than younger people, Mawby (1986) stresses the increased seriousness of

the impact of crime on the elderly and Kosberg (1983) discusses the impact of elderly 'diffused' as opposed to 'actual' victimisation. Maxfield (1987) goes on to talk about general levels of insecurity and low status of elderly people in Western society and that these experiences may heighten the fear of victimisation among elderly people.

Not all studies have found that the elderly are more afraid of crime. Clarke and Lewis (1982) found that concern about crime ranked below the elderly concern about health and money. LeGrange and Ferraro (1987) and Rucker (1990) found that elderly people are no more afraid of crime than younger people are. The findings show that the elderly fear of crime may not be too out of proportion with the younger generations. However, "it is still accepted wisdom that fear among the elderly far outweighs the likely risks, especially that of becoming a victim of violent crime" (Pain, 1995; p.585).

Pain (1995) found that elderly people are very concerned about crime in all circumstances but that young people are also concerned and in some cases are more concerned of certain offences. She found that fear of attack outside by a stranger is the crime that all women have the greatest fear of. However, her research shows that it is younger women (under the age of 45) who have significantly more fear of rape or assault outside the home (64.2%) than older women (46.25%). Her results show that younger women are more afraid of physical attack than elderly women are. This may be accounted for by the fact that younger women are aware that they are more likely to be the targets of these kinds of crime due to their youthful appearance. However, other findings find that elderly women are more concerned with all categories of crime than younger women (Sacco, 1990).

Fattah and Sacco (1989) found that elderly people's fear outweighs their objective risk of victimisation. This work and the work of others have lead many in the field to conclude that elderly people's fear of crime is irrational (Hale, 1996). Hale (1996) points to the work of Warr on this irrationality claim and goes on to argue that elderly fear is not as irrational as it may seem. Warr (cited in Hale, 1996) introduces the idea of 'perceptually contemporaneous offences', which refers to the fact that a minor offence may be seen to be associated with a more serious offence. For example, the elderly may view a person approaching them in the street as a prelude to someone snatching their bag, thus heightening their fear of strangers. Others point to lifetime experience and the

accumulated knowledge of crime as increasing elderly fears (Pain, 1995; Sacco, 1990). This claims that elderly fears are informed over a lifetime and due to greater exposure and experience the elderly have an accumulated fear. Still other researches have claimed that the elderly may be under more risk than the research indicates due to the use of global measures in surveys and that these measures may overestimate the true level of fear among the elderly and that the elderly fear of crime may be justified if these measures were adjusted.

Research on the elderly and crime shows that they are the least victimised group but have the highest levels of fear of crime. The research claims that this fear is not irrational for many reasons and that elderly fear of crime is justified in today's society.

Socio-economic factors

Research in America and New Zealand shows that race, income and education affect levels of fear. Ethnic minorities, those with lower income and education are found to be more fearful of crime. The National Crime Survey in New Zealand found that "levels of fear differed significantly from one socioeconomic group to another. In particular women, younger people, Maori and Pacific Islander respondents and lower socio economic status groups expressed greater worry about crime" (Ministry of Justice New Zealand, 1996; p.5). It has been found that these groups face greater risk and the consequences of crime can be more severe than for other groups as they are less able to rely on financial or social resources, thus reinforcing fear.

People of lower socio economic status are more likely to live in an area with a lack of neighbourhood cohesion and signs of incivility (graffiti) which contribute to increasing levels of fear (Borooah and Carcach, 1997). They are also less able to defend themselves and their property.

Ethnic minorities may also face racist victimisation and have less social networks and more distrust in authorities "non-English speaking background women are 1.2 times more fearful of violence than other women" (Carcach and Mukherjee, 1999; p.4).

More research is needed to look at the precise impact that these factors have on individual and community levels of fear and crime.

Victimisation and Experience of Crime

“The victimisation perspective is based on the principle that fear of crime within a community is caused by the level of criminal activity or by what people hear about activity – either from conversations with others or from the mass media.”

(Bennett, 1990; p.14)

Women may experience crime in a different way to men. That is they “are more likely to generalise across contexts (across time, space and types of victimisation experience)” (Smith and Torstensson, 1997; p.608). Gilchrist et al (1998) found that men and women had different ideas about what offences could co-occur. They found that women are more likely to link less serious offences (burglary) with serious offences (assault).

The literature claims that there are three ways to generalize, these are; “temporal, geographic and type of victimisation” (Pain, 1995; p.584-598). Temporal generalisation means that past victimisations influence current levels of fear. This also related to the third generalisation: type of victimisation. The experience of past victimisation and the nature of the offence all influence current levels of fear. Pain (1995) argues “there is growing evidence that the development of fear of crime in individuals is a cumulative process taking place over a far longer term” (p.592).

Booroogh and Carcach (1997) found that women are likely to be more fearful of previous victimisation experiences than men and that this suggests that women’s perceptions of safety worsen faster than men’s, once women have been victims of personal crime. They also found that the “victimisation/fear relationship suggests that once people have experienced victimisation, the fear of crime among young persons increases more rapidly than it did for older persons” (Booroogh and Carcach, 1997; p.654). Miethe and Lee (1984) found that direct personal victimisation effected fear of violent but not property offences and Skogan and Maxfield (1981) found that direct victims of all offences are more fearful than those not victimised. Warr (1984) claims that the fear of rape may “lie behind and contribute to fear of many other offences” (Warr, 1995; p.247).

Gilchrist, Bannister, Ditton and Farrall (1998), found that those who are more fearful are more likely to gather knowledge about victimisation and think that they are

more vulnerable. There is also some evidence for what Warr (1992) refers to as 'altruistic fear': women worry or become fearful themselves as they take on board the worry or concern about the personal safety of other loved ones. Box et al (1988) found indirect victimisation statistically significant and Skogan and Maxfield (1981) found links between gossip and rumour and levels of fear.

However, not all researchers have found evidence for the victimisation-fear relationship. Ferraro (1996) sampled 1,022 American citizens and found that experience was not a significant predictor for fear of offences. He stated that it is "not nearly as consequential to fear as some might suggest...it matters not whether women have been personally victimised or not; the imagined horror of sexual assault is sufficient to spark such fear" (p.679).

Geographic generalisation is victimisation that occurred in private places effecting levels of fear of victimisation in public spaces (Pain, 1995). The literature claims that the nature of crime against women means it has long ranging effects on fear and that this is across both time and space. Women's experiences of physical, sexual, or emotional abuse in the home may help to account for their increased fear in the community.

The relationship between crime reporting and fear of crime

There is a large body of literature dealing with the link between the media, television and fear of crime. This is briefly discussed below but is outside the scope of the current topic. It is mentioned as it is an area covered extensively in the literature. For a review, see Hale (1996).

"It is immediately noticeable, first, that the fearful (of both genders) cite vicarious victimisation (i.e. indirect experience of victimisation from friends, neighbours and particularly the media) as a source of fear". (Gilchrist, Bannister, Ditton and Farrall, 1998; p.286).

Research shows that newspapers, radio and television have an impact on individual and community levels of fear. Many people base their information about crime and its risks from media reports and these fears may be overestimated because of the extensive media coverage that some crimes receive (Willaims and Dickinson, 1993). Liska and Baccaglini, (1990) found that initial media reports of serious local crime can increase

levels of fear among residents and Garafalo (1981) reports that “the media, particularly in large urban areas, often communicate a dramatic picture of social outcomes supposedly produced by the fear of crime: the image of the city under siege” (Garofalo, 1981; p.854).

Williams and Dickinson (1993) looked at the differences amongst readers of various British national newspapers and found that those who read newspapers containing more leading crime reports displayed higher levels of fear and anxiety.

Knowing someone who has experienced victimisation or hearing about local crime through the media or from gossip is linked to a heightened fear of crime, more so, than being personally victimised or hearing about crime in a distant location (Hale, 1996).

Environmental Factors

“Perceptions of safety are influenced by environmental factors such as the look and feel of the city, level of graffiti, urban design, street lighting or perceived safety of public transport. Media and crime reporting can have a significant influence on perceptions of safety as can the visibility of police and other security measures” (Government paper, New Zealand, 2003; p.2).

Macro level studies support the above statement and further indicate that poor social integration, lack of neighbourhood cohesion, segregation, population size and perception of relatively high neighbourhood crime, contribute significantly to the probability of being afraid of crime and to risk of victimisation among residents (Borooah and Carcach 1997; Lewis and Maxfield, 1980; Rountree and Land, 1996). People who live in larger cities report more fear of crime than those in smaller communities, relating to the fact that larger cities generally experience higher crime rates. This means that those in urban settings have a higher chance of victimisation. Mugford (1984) found that the nature of the environment, and availability of social support networks have an impact on fear of crime. Bell (1998) found that the design of an urban setting affects levels of fear “which are higher amongst women and which vary by location, time of day, mode of transport and the level and nature of other users” (p.4). He also found that the level of activity, the kind of activity and the number of entrapment spots in the environment effect levels of fear.

Research in Australia by Bell and Gastion, (1995) shows the public perceives malls, shopping centres, and other concentrated areas to be unsafe. These results were confirmed by research conducted in Adelaide (Bell and Sarkissian, 1991, cited in Bell, 1998) where the railway station and concentrated social areas made up of bars and nightclubs were found to be of high crime concentration and produce higher levels of fear (Bell, 1998). Increased population density, social diversity and heterogeneity of urban life increase social uncertainty and fear of crime (Hale, 1996).

Research shows that environmental decline increases levels of fear and that perceptions of safety are linked to how well one knows the area and how at ease one feels with the social and physical environment. Strategies for improving feelings of safety in the community are discussed further below, however some research shows that it may not be the design of the social surroundings, but rather, the people who inhabit the space that cause fear of crime and unrest in the community. "Social relations within a space and the group(s) who control that space socially are more important influences on how safe women feel than its design" (Bell, 1998; p.4).

Psychological Factors

There are many psychological factors offered in the literature in relation to fear of crime and all of these will not be offered in this review. For a general overview, see Hale (1996).

To some researchers "fear of crime is an emotional response to signals of danger in the environment while to others it is a manifestation of a general uneasiness about the world" (Hale, 1996; p.120). There has been a large output of information relating to psychological factors and fear of crime. Some of this has related to specific conditions and crimes, and other researchers have looked at it from a more general framework. Some of these factors include "notions of alienation and anomie, unease over the rate of social change, pessimism about the future, perceived lack of interpersonal trust and dissatisfaction with neighbourhood life" (Hale, 1996; p.120). It is said that these psychological attributes are linked to fear of crime in that they exist causally prior to the existence of fear and not as consequences of the fear itself. The support for these associations is weak as it is possible there is causal ambiguity (Hale, 1996).

Van der Wurff et al (1989, cited in Hale, 1996) offer four factors that they believe provide a psychological backdrop for the existence of fear. These factors are: (1) Attractivity (how attractive one sees oneself in terms of being a target for crime); (2) Evil Intent (the extent to which the wrongdoer is perceived to be threatening); (3) Power factor (how in control of the situation a person feels) and (4) Criminalizable space (the surroundings in which the crime may take place). These factors were developed into a social psychological model that, when tested, provided some positive results with their sample. However, Hale (1996) warns against taking this at face value.

In a more modern attempt Gabriel and Greve (2003) refer to Bandura's (1977, 1986) self-efficacy theory. They say that those with high self-efficacy (those who believe they have control over their future) are better able to deal with potentially complicated situations and will therefore experience less fear. They attribute this to three components affective, cognitive and expressive. The affective component is the "(conscious) experience of feeling fearful". The cognitive component is the cognitive awareness of the situation as intimidating or dangerous and the expressive component is the anxious behaviour (e.g. avoidance and protective behaviours) (Gabriel and Greve, 2003). The researchers link social influences, personal dispositions and dispositional fear of crime to fear of crime incidents and claim that all three of these factors need to be present in order for an individual to experience the state of fear (Gabriel and Greve, 2003).

It appears that psychological, behavioural, and situational factors interact to produce the state of 'fear' and that further research is needed to develop a model that can be widely used and accepted in the literature.

The consequences of fear of crime

There are many consequences of fear of crime and all of these interfere with an individual's quality of life. The literature presents many consequences of fear, which are summarised below (adapted from Hale, 1996 and other sources referenced).

Fear of crime can create problems for a community by breaking down community cohesion which in turn reduces some places to 'no go' zones (Morgan, 1978 cited in Hale, 1996). The more affluent members of the community have the means to protect themselves and their property which means that crime can be displaced to those already suffering from other disadvantages (Sampson and Wooldredge, 1986; Riger, 1981). By

reducing the appeal of liberal punishment, fear of crime can lead to increased punitiveness (Ouimet and Coyle, 1991, cited in Hale, 1996). Hale goes on to say that the above point can lead to the view that the courts are too lenient and this can lead to increases in community vigilantism.

Fear of crime leads to an increase in psychological problems and can affect the psychological well being of people living in neighbourhoods with poor physical and social surroundings (Valentine, 1989). Those who see themselves as at risk of criminal victimisation change their patterns of interaction with the community and tend to stay at home more often. Riger and Gordon (1981) found that 41% of their sample used isolating tactics all or most of the time to avoid victimisation and that these tactics consisted of not going out at night. They defined these behaviours as avoidance behaviours, which “refers to actions taken to decrease exposure to crime by removing oneself from or increasing the distance from situations in which the risk of criminal victimisation is believed to be high” (Riger and Gordon, 1981; p.83). A similar finding was shown in the Merseyside Survey where 25 per cent of participants most often stayed at home after dark and avoided activities they perceived as dangerous. This included walking down the street, avoiding certain types of people, going on any form of public transport and entering certain areas designated for entertainment (Hale, 1996). Gordon, Riger, LeBailly and Heath (1980) state, “women’s strategies are costly in terms of personal freedom” (p.152).

There is strong evidence in the literature that women adopt these avoidance tactics more frequently than men do. Gordon, Riger, LeBailly and Heath (1980) found that women are more likely than men to use strategies which include “not going out alone; not coming home alone; and avoiding dangerous areas, strangers, and other situations that could lead to danger” (p.152). This is supported by Bell (1998) who found that women more often than men develop detailed mental maps of parts of their city where they feel safe and those where they do not feel safe and avoid altogether. Warr (1985) found that 40 per cent of women avoided going out at night compared to 9 per cent of men, and that while 42 per cent of women avoided going out alone at night only 8 per cent of men used the same tactic. Griffin (1971) states that the “fear of rape keeps women off the streets at night, keeps women at home, keeps women passive and modest for fear they be thought provocative” (P.27). He goes on to say that by women constraining their behaviour it may

in turn lead to more social decay in the neighbourhood as they withdraw from community life and become suspicious of their neighbours. Liska et al (1988, cited in Hale, 1996) argue that a downward spiral forms due to the relationship between fear of crime and protective behaviours. They propose that as fear constrains people's behaviour this restraint serves to further heighten their fear.

Following on from this other researchers have proposed that fear of crime may result in increased rates of crime as less people are on the street to publicly watch over an area, increasing the opportunity for offences to occur (Goodstein & Shotland, 1980). Skogan (cited in Hale, 1996) summarises the effect of fear of crime on community life well.

"...the spread of fear and other local problems provide a form of positive feedback that can further increase levels of crime. These feedback processes include (1) physical and psychological withdrawal from community life; (2) a wakening of the informal and social control processes that inhibit crime and disorder; (3) a decline in the organizational life and mobilization capacity of the neighbourhood; (4) deteriorating business conditions; (5) the importation and domestic production of delinquency and deviance; and (6) further dramatic changes in the composition of the population. At the end lies a stage characterized by demographic collapse." (Skogan, 1986b; cited in Hale, 1996; P.215).

However, other researchers have argued that this increased fear and view of social disorganisation affects people's perceptions of crime in the neighbourhood, and consequently their reactions to that matter become collective and more productive. Balkin (1979) goes as far to say that "it is possible that women's high perceived risk produces fear and consequent precautionary behaviour, which in turn leads to low rates of victimisation in the local community" (P.343-58).

It is evident that there are many effects of fear of crime on people's lives and on communities. If social cohesion is strong, the community is better able to handle the problem as a collective, however, if social integration and support are low, fear of crime may produce more crime in the community as people use protective and avoidance behaviours. Women in particular are more likely than men to use these avoidance behaviours and become virtual prisoners in their homes at night.

Strategies for reducing fear of crime

Strategies to reduce fear are both community and personally focused looking at both 'crime prevention' and 'victimisation prevention' (Cohen et al, 1978). Crime prevention refers to providing activities for youth, job provision, and education or measures that try to deal with the root causes of fear. Victimisation prevention refers to avoidance and target hardening measures.

Neighbourhood Watch, sensitive design of urban space, improved street lighting, closed circuit television, increased police presence, and community policing programs, are strategies offered in the literature as ways to tackle fear in the community (Hale, 1996).

These measures are fairly well matched with what the community report as things that would make them feel safer. In Scotland, women were asked to rate ten things that would make them feel safer in relation to public transport. "The top ten issues rated most highly by women were more accessible timetables; better street lighting; more evening bus and rail services; more police in towns; clearer timetables; closed circuit television in stations; more consultation with women in developing transport policy; police travelling on vehicles; more routes in rural areas and closed circuit television installed on vehicles" (Government Publication, Scotland, 2000; P.2).

Research in Australia has found similar results. Findings here indicate that women's safety is enhanced by: good and consistent street lighting, mixed activity and legitimate use by patrons (e.g. no loitering), visible surveillance systems and security, police presence, clear pedestrian signage, public telephones and security poles, clear sightlines, secure public transport and safe areas to wait whilst in transit, areas that promote passive surveillance and areas that are well maintained (City of Perth, 2002).

Research into Neighbourhood Watch has found that it has little effect on crime rates but that it does help to reduce the public's level of fear (Home Office). Research on design and public space has found that poor surroundings increase fear (Bell, 1998). Some crime prevention through environmental design (CEPTED) guidelines, such as, night economy, housing in city centres, ground floor development, priority to pedestrians, women involved in planning and development, urban villages, visibility at doorways, and improved lighting, increase levels of safety. Other initiatives including safe design of

footbridges and alleyways/subways, cultural animation, landscaping, women safe transport schemes, painting walls, closed circuit television and women safe campuses, have also been found to have effects on levels of safety and decreasing fear of crime in the community (Bell, 1998).

Improved street lighting has been a very popular measure over the last ten years to improve safety and reduce fear of crime, however not all of the research has had positive results. Citizens of Glasgow “reported insignificant improvement in the rate of crime or their fear of victimisation despite improved street lighting in their neighbourhoods and improved security in their homes” (Nair, Ditton and Phillips, 1993; P.555).

There is a growing body of literature that point to the important role police play in reducing fear of crime. Winkel (1986) found that people want more police on the street and that police help to reduce fear by providing people with the view that they are able to control, predict crime, and offer the public assistance. From a psychological perspective, this is said to reduce fear. Hale (1996) offers empirical grounds for this argument. “The evaluation of police Co-ordinated Community Policing Program experiment in Newark, New Jersey, found that while increased foot patrols had no impact upon the volume of reported crime, they did have positive effects upon the perceived impact of the crime problem in the area, the concern about crime among the population and the police-public relationship” (Hale, 1996; P.128). The programme found that all measures relating to higher police presence had an effect on reducing fear of crime (Hale, 1996). This is supported by Box et al (1988) who state “if people believe that the police are effective and efficient at clearing-up crimes and apprehending criminals, and that they respond to crimes quickly and that they have a physical presence on the ground, they are less likely to fear crime” (P.342). Police presence appears to act as a symbolic reminder to the public and to therefore reduce their fear.

There are many strategies offered in the literature to improve the community’s safety and their levels of fear. Not all of these initiatives will be effective under the same conditions and what is employed should be tailored to a specific area and its needs. However, it would appear that any strategy to improve safety and decrease the public’s fear of crime needs to centre on both ‘crime prevention’ and ‘victimisation prevention’ in order to be truly effective.

Conclusion

Literature on fear of crime has grown extensively since the 1960's and has emerged as one of the most influential and important issues worldwide. The problem of the communities' fear of crime is almost as serious as the crime dilemma itself. This growth in attention has stemmed from the increasing use of household national crime surveys in the USA and elsewhere in the world. The measurement of fear of crime plays a central role in the literature and is blamed for a lack of clarity in findings. This is attributed to the use of 'global' measures and many researchers have tried to combat this problem by asking participants for both subjective and objective measures of fear and by using methodological triangulation.

The fear of crime literature shows that women are more fearful than men and that older women are more fearful than younger women except for the crime of rape. Four main theories are offered to explain fear of crime. These are vulnerability, which includes physical vulnerability and social vulnerability, victimisation and past experience of crime, environmental factors and psychological factors. Women, the elderly and the poor fall under the vulnerability heading.

The literature shows that women may experience crime in a different way to men and are more likely to generalise across time, space and types of victimisation experience. Women are also more likely to be fearful of previous victimisation experiences than men and once women have been victims of personal crime, their perceptions of safety worsen. Research shows that newspapers, radio and television have an impact on individual and community levels of fear.

Public perceptions of safety and fear of crime is influenced by environmental and social factors, such as, the look and feel of the city, levels of graffiti, urban design, street lighting or perceived safety of public transport. In addition, poor social integration, neighbourhood cohesion, segregation, population size and perception of relatively high neighbourhood crime levels can have a significant influence on perceptions of safety.

The literature offers many psychological models to explain fear of crime.

Strategies to reduce fear are both community and personally focused looking at both 'crime prevention' and 'victimisation prevention'. Police presence and environmental design have been found to impact on community fear.

The fear of crime literature is characterised by a lack of consensus regarding many issues and this appears to stem from the use of a variety of methods and approaches to the topic. It is clear that fear of crime is influenced by many factors including vulnerability, social decay and by a lack of community cohesion. Women and the elderly have different experiences of fear than other users of urban settings and it would seem that any strategy adopted to reduce fear would need to be considerate of their needs.

Research Questions

The research questions are designed to be explored from a social constructionist framework. The central question the research puts forward is: Does Closed Circuit Television increase women's feelings of safety and security?

The questions surrounding this central query are as follows:

1. What purposes do women attach to CCTV surveillance in Northbridge (Perth, Western Australia) and how effective is CCTV perceived by women to be at achieving these purposes? Questions 5 and 6 of the questionnaire focus on this question (Appendix D).
2. What is women's level of awareness of CCTV in Northbridge? Questions 3, 4, 7 and 14 of the questionnaire focus on this question.
3. What are women's attitudes towards CCTV in Northbridge? Question 8 in the questionnaire deals with this question.
4. What benefits and drawbacks do women associate with CCTV in the Northbridge area? Question 15 in the Questionnaire focuses on this topic.
5. What else could be done to increase women's feelings of security and their actual safety in Northbridge? Question 16 of the questionnaire looks at this question.
6. How do women feel, in general, about crime and safety in Northbridge? Questions 9, 10, 11, 12, and 13 look at women's opinions of crime and safety in general.

Definitions of Terms

- Surveillance Cameras – technology designed to monitor and record the environment. Principally used in public space where it is monitored by police or local authorities.

- Attitude – “a relatively enduring organisation of beliefs, feelings and behavioural tendencies towards socially significant objects, groups, events or symbols” (Vaughan & Hogg, 1998).
- Situational Crime Prevention – crime prevention aimed at reducing the number of opportunities or situations in which criminal behaviour can occur.

CHAPTER TWO

METHODOLOGY

METHODOLOGY

The study was planned to be both qualitative and quantitative and to be exploratory in design. The qualitative component was included as the first stage to facilitate discussion of CCTV in the community and to tease out ideas for the quantitative component of the research. Part A consisted of a series of 6 interviews with women in Perth. The quantitative component was the second stage of the study and consisted of administering a questionnaire to 295 Perth women from the CBD and Northbridge at different times of day and night. This method was chosen as the researcher is interested in both qualitative and quantitative research and the mixed method approach is a recommendation for research dealing with crime and fear (Hale, 1996). By using methodological triangulation (use of diverse techniques), both objective and subjective attitudes were sought, which strengthens the results of this research and fits into the social constructionist framework. Study A was conducted first followed by study B. The researcher decided on this format, as it allowed information from the interviews to be used to strengthen and expand upon the questionnaire. Study A and Study B are dealt with in turn below.

Study A (Qualitative Component)

Target Population

Non-probability sampling was used to gain 6 key informants who were a rich source of information. The sample of women used represented a good cross-section of Perth's professional female population who access the Northbridge area or who work in a related field (women's interests or safety). Participant triangulation was used to access women from different positions and backgrounds. Interviews were conducted with a female Police Officer, Senior Project Officer for the City of Perth, senior member of the Camera Surveillance (CCTV system) for the City of Perth, Member of the Office of Women's Policy, Northbridge Bar Worker and a Senior Mediation Officer from the Department of Justice. By using triangulation a diverse sample of women was accessed who had different ideas, views, beliefs and attitudes to women's safety and CCTV. This

insight provided a rich and credible source of information to strengthen the questionnaire used for the quantitative part of the research.

Participants were accessed through the researcher's contact base and some interviews snowballed through contacts gained from other research participants. Because this study formed one part of a larger study, it was not possible, due to time restrictions, to get to the saturation point of findings. The information gathered was more than sufficient for the purposes of the research.

There were some inclusion and exclusion criteria for these participants. Participants had to be female and between the ages of 18 and 60. The women also needed to access the Northbridge area at least once a week through social activity, study or work and/or have a good understanding or interest of women's safety issues in Perth and some general knowledge of CCTV.

Design

Qualitative research allows for the subjective experiences of participants to be explored and described (Creswell, 1998). Part A of this research was of a qualitative and descriptive nature in keeping with the social constructionist framework. This component was carried out using semi-structured interviews. The aim was to gain a deeper understanding of thoughts, feelings, beliefs, values, assumptions and perceptions associated with women's safety and CCTV in Northbridge and generally Perth CBD. The researcher decided to interview women as the first component of the research as this form of data collection allowed for more open and in-depth experiences to be explored and is in keeping with the social constructionist experience. This interview data helped to tease out any issues previously not thought of by the researcher or to clarify certain points in the literature and was then used to shape and provide support for the questionnaire used in Study B.

Instruments

Semi-structured interviews were used where participants were asked questions and were free to discuss what they wished in relation to the topic. The interview questions can be viewed in Appendix A. The interviews were tape-recorded using a Panasonic hand held recording device. Some informal observations were taken and all

notes and research thoughts were recorded in a research journal. The interview questions were given to the research supervisor and the City of Perth Senior Project Officer prior to the beginning of the interviews to read through and comment on in order to determine face and content validity.

An information sheet outlining the purpose and goals of the research was given to all participants and a consent form was also signed. These can be viewed in Appendices B and C.

Procedure

Participants were recruited through the researcher's network of contacts or other participants provided details for further potential research participants. Participants were contacted and asked if they wished to take part in the research. Participants read an information sheet and signed a consent form outlining the nature of the study and what their involvement entailed. The interviews were carried out during business hours in a location suitable to both the researcher and participant. Most interviews took place in the offices of the participants where distractions and noise were at a minimum. This helped participants to focus on the interview and allowed for observations to be made in a work setting where participants felt comfortable. Consent to tape record the interview was sought when arranging to interview participants. The interviews were only conducted with participants who consented to the interviews being tape-recorded, as this was an important element of the research in terms of consistency of data analysis. No participants declined to participate on the basis of recording.

Data Analysis

The interviews were transcribed verbatim and thematically analysed. A decision was made not to use a computer program to analyse the interviews as there was not a great quantity and the purpose of the interviews was to provide support for the questionnaire and not the main focus of the research. The researcher looked for common themes and relationships and for any different or interesting information. The data was analysed using the following five steps.

1. Data was organised and cleaned up so that the information was accessible.
2. Any redundant material was cut from the data analysis. This included pauses,

‘umms’ and ‘arrs’ and any information that went outside the scope of the interest of the research or was not required. This made the transcript precise and clear. The information was then put into an excel spreadsheet with the questions down the side, the participants up the top and their individual responses along the spreadsheet.

3. Looking at the responses in the spreadsheet generated common themes and patterns across questions and participants.
4. The data was then loosely colour coded by assigning a colour to each theme or common response.
5. The emergent understandings were looked at in the context of who the participant was and compared with the researcher’s understanding of women’s views and ideas from the research literature. The common themes and ideas were used to provide support for, or to change the wording of, or nature of, the questions in the questionnaire.
6. Alternative explanations and interpretations of the responses were sought, the questionnaire was finalised to reflect the views of participants, to take into account an existing questionnaire used in a Melbourne study of CCTV and to reflect the current literature on both CCTV and fear of crime.

Limitations

As this study forms one part of a larger research project it was limited in certain ways. The number of participants was limited due to time restrictions, which may have produced a narrowing of the sample and limited the findings. The researcher tried to combat this by using a range of key informants who were a rich source of information. This part of the research only focused on a select group of women who regularly access the Northbridge area or have an interest in women’s safety, therefore, the views of those women who do not fit these criteria and their reasons and attitudes towards safety were not determined.

Study B (Quantitative Component)

Target Population

Purpose sampling was used to gain access to 295 participants. A sample of this size was chosen because of the particular diversity of the Northbridge area and the range of activities undertaken in the study area. A large sample size was also used to ensure generalisability of the sample population. Participants ranged in age from 18-60. This age group was chosen as there is little research that focuses on this demographic of women in Perth and this group reflects the range of women who use the area in interest. Women under the age of 18 were excluded from the sample as the Northbridge area is made up of residential, retail, restaurant, bar and nightclub uses. It was assumed that those under the age of 18 access this area less frequently than those over the age of 18. This age group was further excluded as the City of Perth recently did a comprehensive study with young women (under 18) in the City of Perth. The elderly were excluded for the same reasons and also due to the volume of literature available on the elderly and crime.

The target population was women who access the Northbridge area at various times of day and night and for a variety of activities. It was an assumption of this research that women who access the area will have a better understanding of how they feel about being under surveillance and their attitudes towards CCTV. There were some inclusion and exclusion criteria for these participants. Participants had to be female and between the ages of 18 and 60. Women also needed to access the Northbridge area and/or have an understanding of or interest in women's safety issues and CCTV in the area. It is assumed that most women who are out during the day and night have some understanding and interest in women's safety (their personal safety).

This research aimed to survey women who interact with the study area. The aim of the study was to better understand attitudes towards CCTV, the purposes women attach to CCTV, how effective they believe CCTV is at achieving these purposes, how to improve safety in the Northbridge area, if there is a relationship between CCTV, feelings of safety amongst women, and women's general attitudes about crime and fear of crime. The researcher believes that the sample chosen reflected the aims of the research purposes.

Design

This part of the research was a quantitative study with a quasi-experimental design. Administering a questionnaire carried out this exploratory design. The aim was to gain an understanding of thoughts, feelings, beliefs, values and assumptions associated with women's safety and CCTV. The independent variable for this research is CCTV and the dependant variable is women's feelings of safety and security. This design was chosen as it was appropriate for the research question and would allow for a descriptive interpretation of women's attitudes.

Instruments

A nine-page questionnaire was designed to survey participants. This can be viewed in Appendix D. The questionnaire was loosely designed in the beginning and was modified after the qualitative component of the research and a pilot test.

Women were asked how aware they were of CCTV in Northbridge and how they became aware of CCTV (e.g., media, 'I have seen them', 'they are obvious', friends/family or other). Women's perceptions of the purposes and effectiveness of CCTV were measured by asking respondents to rate whether they strongly agreed, agreed, were undecided, disagreed or strongly disagreed with 17 statements relating to CCTV. These statements were the same for the purpose and effectiveness questions. To measure levels of awareness participants were asked how long they believed the CCTV system had been operational in Northbridge, how many cameras were in the system, if they knew what the cameras looked like and if they knew anything about CCTV operational procedures. A five-item measure (from definitely to definitely not) was used to measure if respondents thought the City of Perth should do more to make participants aware of the CCTV system, if media portrayals of the area were accurate or not and if they thought crime rates had increased in the area over the last five years.

Participants were asked to rate the way they felt (feelings) about CCTV by responding to 16 statements on a five-item measure (strongly agree to strongly disagree). The statements posed such things as 'it is a good idea', 'it will help the police', 'CCTV makes women safer', 'CCTV might be a threat to civil liberties', 'without CCTV's there

would be more crime against women in Northbridge', 'I do not trust the authorities to use the system fairly', and 'CCTV contributes to the 'male gaze' of men watching women'.

The second part of the questionnaire asked women some questions about CCTV, crime and safety in general and about their fear of crime in Northbridge. Measurement problems raised in the fear of crime literature were considered when designing this section, in particular the suggestions made by Ferraro and La Grange (1987) earlier in this paper. Women were asked to rate how dangerous they believed Northbridge to be at night and during the day on a 5 point scale (very dangerous to not dangerous). To measure risk and fear about crime women were asked to rate if they were personally concerned about becoming a victim of crime and to rate from 1-8 the types of crime they were concerned about (assault, stalking, rape, theft, indecent assault, harassment, verbal abuse and damage to property). Respondents were also asked to rate how concerned they were for their loved ones from crime and criminals in the area. Fear of crime and safety in Northbridge was measured on a five-point scale (very unsafe to very safe) by responding to 14 statements. These asked such things as 'How safe do you feel or would you feel being in Northbridge when: 'you are alone', 'with female friends', 'after midnight', 'parking your car', 'calling a taxi', 'walking over to the train station', and 'in a restaurant'. These statements were designed to be based in reality and to reflect everyday situations participants might find themselves in. Women were also asked to circle areas on a map to indicate places they would be afraid to go at night.

Finally, women were asked to list two pro's and two con's of CCTV, if they would feel safer in Northbridge now they were more aware of CCTV (from the survey) and they were asked to rank 7 items from a list of 18 that they thought would help to increase women's safety in the area. These items included some of the following: 'provide juveniles with other activities', 'more women police officers', 'more CCTV cameras', 'shuttles to and from public transport', 'culturally specific programs', 'better street lighting', 'early intervention programs', and 'after dark pedestrian walkways'. For a full copy of the questionnaire, please refer to appendix D.

A disclosure statement can also be viewed in appendix E. This was attached to the cover of the questionnaire to inform participants about the research. The letter that was

given to participants can also be viewed in the appendix F. This letter was given to all participants informing them of the research and providing them with free counselling services should they require them.

Reliability and Validity

Validity of an instrument is when the instrument has been designed to adequately measure what it is purported to measure. To investigate face and content validity, a qualified researcher in the field assessed all the items to determine whether they measured the content of the proposed research study and whether the items were worded correctly. The instrument was designed to have face and content validity.

Reliability is the extent to which subjects consistently score at the same level each time the test is administered. Several items in the questionnaire were obtained from a previous research study giving them some reliability.

To ensure further reliability of the survey instrument a pilot study was conducted in order to investigate the frequency and means of scores, the language, wording and presentation format. This consisted of surveying a small group (n=15) of women from the sampling area. Any suggestions as to improvement were incorporated in the major survey to be given to respondents. Some of these suggestions were in relation to layout and were incorporated into the final design. A data sheet was designed in SPSS and all pilot test data entered. The researcher looked at the frequencies and means of each item in each question. The pilot test showed a good spread of scores and distribution of variables with high correlations and reliability. A few changes were made to the questionnaire after the pilot test. It was decided to add a question asking participants if they visited the area more frequently at night or during the day and to add a question about changes in crime rates in the area over the last five years. Question 12 was also reworded to look at safety at night rather than the original question which asked about safety in general. It was further decided to rank seven items instead of ten in question 16. These were minor changes but helped to improve the data-collecting instrument.

Procedure

A pilot test was administered to 15 women in the sampling area to test the questionnaire's reliability and validity. The questionnaire was altered accordingly.

A map of the sampling area (area covered by CCTV in City of Perth) was divided into 200 metre by 250-metre squares that were numbered from 1-56. The researcher looked at the frequency of human traffic in each of these squares and this information was then used to select the number of participants to be surveyed in each square. This sampling method was loosely followed, and acted as more of a guide as to where and how many surveys to collect in each area rather than as a definite number to collect. This ensured that surveys were collected from the whole area under surveillance, however, the majority of surveys were collected in the Northbridge area and not the CBD.

295 women were surveyed at different times of day and night and on different days of the week (Monday to Sunday), over a period of several weeks in June, using the purpose sampling method. Data was collected from the sampling area, between 7am and 3am on these days. Women were approached in the street, at cafés, in the lobby of the cinemas, in car parks and in bars/nightclubs by the researcher and an assistant on some occasions and asked if they wished to participate. The researcher had clipboards with disclosure statements, questionnaires, letters and pens for participants to complete the surveys. In some instances, the researcher read the questions to the participants and filled out the questionnaire and in other circumstances, the participants filled the questionnaire out themselves. This was the participant's choice with most respondents choosing to complete the survey themselves.

The purpose sampling method was time consuming and demanding but it was preferred to a mail out or phone survey. The researcher wanted direct interaction with the participants and gained a good response rate by being physically present.

Using a relatively large sample and administering the questionnaires in varying locations within the sample area, ensured that a good cross-section of women was sampled. By using such a diverse sample, different ideas, views, beliefs and attitudes to women's safety and CCTV emerged from the research.

Data Analysis

The survey consisted of a range of items which allowed for a rich and diverse descriptive analysis. Questions relating to how people feel about CCTV and age interactions provided the researcher with a wealth of information.

Once the data was collected, it was entered into SPSS. Descriptive statistics were conducted on most questions to get an overall picture of the data. For some questions, percentages were calculated and for others, means. This depended on the nature of the question. The data on each item of each question is presented in the result section with some in table and some in graphical form. The uni-dimensionality of questions 5, 6 and 8 were analysed using Factor Analysis with Varimax rotations. If more than one factor emerged, the results were analysed in terms of the items having high factor loadings on those factors. Items, which had a factor loading of 0.40 or higher, were used as representatives of the identified factor. Some interesting factors emerged but the researcher decided not to do a multiple linear regression test as she wanted to discuss the results in a more descriptive way looking at each item of each question rather than in a simplified and grouped manner. The components of the Factor Analysis are discussed in the result section.

One-way Analysis of Variance was performed looking at the interactions between age and questions 5, 6, 7, 8, 9, 10, 11 and 12. Post Hoc comparisons were conducted on question 10a.

Some correlations were conducted between items relating to CCTV and items relating to safety but as the results are skewed, no significant correlations were found. These are not included in the result section below.

Limitations

This study was limited in certain ways. The number of participants was limited due to time restrictions, which may have produced a narrowing of the sample and limited the findings, however a relatively large sample size was still used. There were also financial restrictions, as a student with limited resources carried out this study. The research did not gain the views of those who do not access the sampling areas and their reasons and attitudes towards safety were not determined: this may be the scope for further research. This research only gained the attitudes of women on a small and selected portion of this broad topic and did not identify circumstances in which CCTV would be most effective or how effective CCTV is at reducing actual crime statistics. It did not look at crime rates or determine levels of displacement. There may also have been

outside influences on the research, as CCTV became a media topic in Perth as the government decided to install CCTV along the new train route. This may have influenced respondents' awareness or attitudes towards CCTV in the city.

Ethics statement

In order to meet ethical requirements the following steps were taken. Prior to participating in Study A participants were asked for permission to tape record the interviews and the research questions and nature of the study were discussed. An information sheet was distributed to these participants ensuring participants knew what to expect. Consent was sought on a form, which outlined the purpose, procedures, and potential risks of the research. What the research may contribute was further outlined on the consent form.

Participants in Study B were given a disclosure statement to read before deciding if they wished to participate. By filling out the questionnaire, respondents gave their consent to participate. A consent form was not used in study B due to the volume of questionnaires to be filled out. An information sheet was given to participants upon completion, outlining some free counselling services should they wish to discuss any further.

CHAPTER THREE

RESULTS

RESULTS

Study A

The findings from the qualitative interviews are presented below.

Most women who were interviewed visit the Northbridge area for work related reasons or 'to take the family out for a meal' or for recreation after work. Five of the six women interviewed were aware of CCTV but they all agreed that it was not something that they were particularly aware of when in the area. One woman stated *"even though you know it's there, it's not something when walking the streets I think Ooooh I'm on camera so therefore I think (a) I'm safer or (b) my privacy is being invaded. It is a big brother thing – they forget the cameras are there and are not openly conscious of them"*. Besides the surveillance supervisor who stated *"there are 125 cameras. Five in Claremont, 2 in Kings Park and 118 in the City of Perth"* women in the sample were not aware of how many cameras there are, and responses ranged from ten to a couple of hundred. Most women were unaware of the type of cameras in Perth, or any of the operational procedures. Women were also unsure of the area covered by the cameras but most included the main entertainment areas and public places.

Purposes

When asked about the purposes of CCTV, women's responses varied from CCTV only being used as a tool to improve safety, to the purpose being not to invade privacy but to protect people. Women also responded that it was to record evidence on tape so the police could take action when something occurs, detection of crime, and making people feel safer. Some women in the sample did not believe that the cameras acted as a deterrent. *"Northbridge is such a busy place and it is a multicultural place, based on my opinion the cameras are not as much of a deterrent as they could be. This is because the cameras are not visible. If there was more awareness of them then they would serve as a deterrent"*. Another woman stated *"If they were a deterrent there would not be the fights that there are, bouncers wouldn't be punching up guys in the nightclub line, people getting knifed on the street. In that moment when someone is angry it just happens and I think a camera really when it gets to that point is not going to make a difference it is immaterial. However, police presence may make a difference"*. Other women did think it

was useful as a deterrent and stated, *“it plays an important role. It is not a cure all but one of a number of tools in the community safety area that can be used to enhance safety. Vulnerable members of the community (seniors, disability) feel it does improve their sense of safety and that it does have a preventative function, however the area is not under constant surveillance so it cannot be use to ensure people’s safety”*. Another woman replied that *“it is a safety issue and I think people who know it is there are more inclined to come into the city. It helps the retailers and shopkeepers feel comfortable knowing that stores can be monitored and if people are having fits, collapse or something you can get medical assistance to them quicker and the cameras can monitor them until police and ambulance arrive. Also it helps to find lost children and elderly people”*.

Effectiveness

Most women thought that CCTV was effective. *“Yes, I think it is effective, yeah I would definitely say that it is doing something”* and *“it does have a place particularly for women”* and *“as far as assisting police it comes in very handy. There is a good response (outcome) from tapes taken to court and used as evidence. Shops that have had damage done to their store and shoplifters, they see recorded evidence and then the offenders change their plea as there is evidence and it is obvious”*. However, not all of the women thought that CCTV was effective and a key issue raised was the public’s lack of knowledge about the system. As one women stated *“no it is not really effective, I wouldn’t think of it as preventative, if anything it might allow people to be caught for committing crimes, being caught on video but I don’t think it would stop anybody and people don’t even know that it is there. Something needs to be done about that”*. Another woman responded *“I don’t think it’s working to its fullest potential because people aren’t aware”*. All women in the sample thought that the City of Perth should do more to make the public aware of the system.

No one in the sample thought that CCTV was an invasion of privacy or minded her behaviour being caught or watched on camera. *“I don’t think people mind. I don’t mind having my behaviour monitored I mean if anything did happen to you, you might be lucky enough to have it caught on tape or seen by a surveillance worker. Cars have been broken into and you can go back and look at the footage and it really helps people”*.

CCTV's effect on safety

When asked about the effect CCTV has on women's safety women in the sample were unsure. *"Does have an impact but exactly how much that is hard to measure as it is only one in a number of things that impact on safety. It cannot be the prime thing in making women felt safer but it contributes". "The safety walks done by the City of Perth have received positive feedback showing that women are now more aware but there is still a long way to go and people need to be more aware" and "umm...people are not aware...if they are not aware then it won't influence their safety. If they were aware of it then I suppose there could be a perception that, perhaps as a result of being monitored, there could result an element of greater safety. I guess if somebody is out there watching then somebody has their finger on the pulse... but then again I don't know very much about how it is managed and what procedures are in place. I guess in terms of outcomes I would not necessarily have the greatest confidence and other women may feel the same".*

In response to her own safety one woman responded *"if something was to occur in retrospect I would feel safer but at the time I am not aware of the cameras being there. I don't walk down the street and go, cool someone's going to stab me, but it's okay because CCTV's there and then they're going to catch it because I am still going to get stabbed aren't I? Maybe the thought is in the back of my mind but it is not a conscious thought. CCTV helps people to enforce justice after the crime has been done. Even though it may help women it may also be too late".*

Safety in Northbridge

Women in the sample thought that Northbridge was a dangerous place at night and they felt unsafe when in the area. However, women did not think that Northbridge was dangerous during the day and one woman stated, *"Northbridge is a different place during the day".*

Benefits of CCTV

Women stated that the benefits of CCTV are to record evidence, assist police, prevent some crime happening, detect certain trouble (gangs and groups of people or known criminals), reduce shoplifting and make people safer. They thought that the main drawback of the system was that it was not operating to its fullest potential, and that it

affected people's privacy. One woman stated *"that CCTV is often seen as a relatively easy way to contribute significantly to community crime prevention but whether that money could have been better spent on other initiatives, I think, might be the case. Politicians like to see physical things they have spent the money on and they (politicians) are under pressure from traders and the public to be seen to be doing something about crime"*.

Things to improve safety

Women were asked what else they thought could be done in Northbridge to increase women's safety. One woman responded, *"it's the mix of people there that's the problem. There are restaurants and cafes, pubs, clubs, bars and a huge range of music, people, and age groups. There is the younger population who are experimenting with drugs and alcohol, this can fuel racism, and it's all blended together in this one area! So I am not sure what you do about that"*. Other women suggested early intervention programs for young families and young people, as one woman stated, *"we are working at the wrong end, we should work from a preventative stance to help socially disadvantaged communities from getting into crime in the first place. These are the most effective strategies but they are long-term strategies and the politicians have to stick with them and be committed. Varying levels of affluence is generating social disadvantage"*. Women in the sample also suggested giving the Aboriginal and other youths in the area something to do. One young woman was very concerned about this and stated, *"you get these massive groups of Asians, Aboriginals and young people and they are yelling abuse and making comments. They are all under the influence of drugs and alcohol and they are unpredictable. They ask you for a cigarette and you say no and you get your head bashed in – it happens and if we don't provide these kids with other activities it is only going to get worse"*. Women also raised the need for people to take responsibility for their own actions and to go out in groups. Education and awareness raising, improved street lighting, better taxi ranks and having the police take school classes through Northbridge when people turn seventeen, were also suggested. The need for the area to be better and more realistically portrayed by the media was a topic that nearly all women linked to the socialisation of women and perceptions of women in Perth as unsafe at

night when in actual fact “the media just hype this stuff up and present an inconsistent and distorted view of crime in Northbridge”.

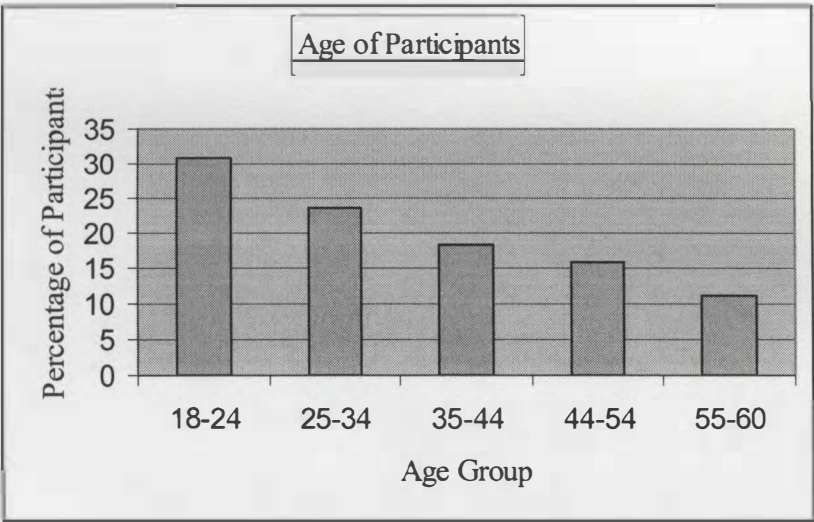
Women in the sample were supportive of the research and the findings helped to strengthen the overall research questions and the questionnaire given to the public. The results of the public survey are presented below.

Study B

The result section below will firstly present some general descriptive information and due to the volume of information will answer the research questions in turn.

General Descriptive

Graph 1



Age

The sample consisted of 295 women ranging in age from 18 to 60. Women in the 18-24 age group accounted for 30.8% of the sample (91 participants), women in the 25-34 age range 23.7% (70 participants), women in the 35-44 age range 18.3% (54 participants), women in the 44-54 age range 15.9% (47 participants) and women in the 55-60 age range accounted for 11.2% (33 participants). The sample is well spread across the age groups and reflects the distribution of age groups who access the Northbridge area, with a predominance of younger people.

Ethnicity

Table 4

Ethnicity of women in the sample

Ethnicity	Percentage of Participants	Number of Participants
Australian (or did not respond to the question)	76.9%	210
Italian	6.4%	19
Asian	4.4%	13
Aboriginal/Indigenous	3.1%	9
English	2.4%	7
Vietnamese	1.4%	4
Chinese	1%	3
Spanish	1%	3
Polish	.7%	2
Indian	.7%	2
Malaysian	.7%	2
Canadian	.3%	1
Burmese	.3%	1
Total that identify with ethnic group other than Australian	23.1%	85

Table 4 shows that 76.9% of the sample identified themselves as Australian or did not respond to the ethnicity question. 23.1% of the sample identified with an ethnic group other than Australian.

Why visit Northbridge

Table 5

Descriptive statistics of why women visit Northbridge

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	WORK-STUDY	17	5.8	5.8	5.8
	LIVE NEARBY	17	5.8	5.8	11.5
	VERY RARELY VISIT	72	24.4	24.4	35.9
	RECREATION	66	22.4	22.4	58.3
	OFTEN	36	12.2	12.2	70.5
	RECREATION	36	12.2	12.2	70.5
	OCCASIONALLY	85	28.8	28.8	99.3
	PLEASURE	85	28.8	28.8	99.3
	OTHER	1	.3	.3	99.7
	MISSING	1	.3	.3	100.0
Total		295	100.0	100.0	

As shown in table 5 participants visited the area for a variety of reasons. Most participants visited Northbridge at night (79.7%) in comparison to during the day (18.6%). 85 participants (28.8%) visited the area occasionally for pleasure, 72 (24.4%) very rarely, 66 (22.4%) for recreation, 36 (12.2%) often for recreation, 17 (5.8%) for work or study and 17 (5.8%) live nearby.

Question One

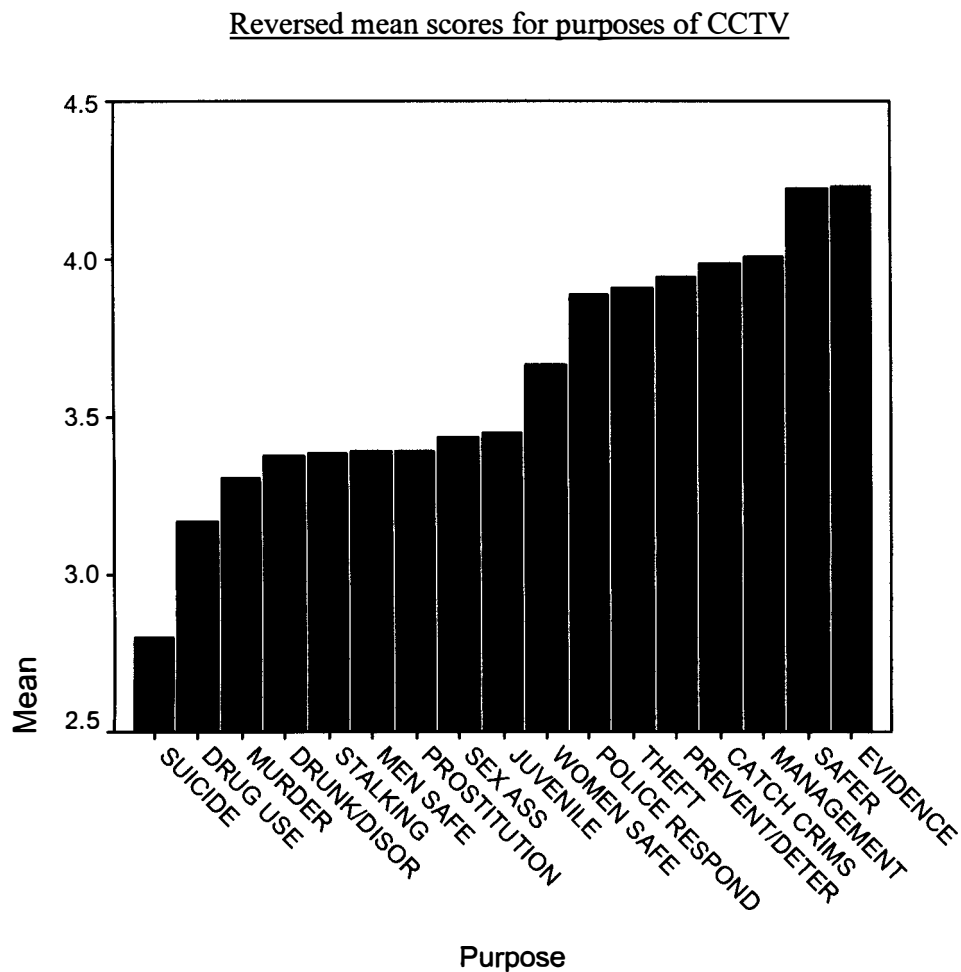
What purposes do women attach to CCTV surveillance in Northbridge and how effective is CCTV perceived by women to be at achieving these purposes?

Table 6

Descriptive Statistics – Purposes of CCTV

Purposes	N	Minimum	Maximum	Mean	Std. Deviation
EVIDENCE	295	1.00	5.00	1.7729	.66951
MAKE SAFER	295	1.00	4.00	1.7797	.68183
MANAGEMENT	295	1.00	5.00	1.9932	.76485
OF N/B					
CATCH	295	1.00	5.00	2.0136	.82467
CRIMINALS					
PREVENT/DETER	295	1.00	5.00	2.0576	.97244
THEFT	295	1.00	5.00	2.0915	.91571
POLICE	295	1.00	5.00	2.1119	.98511
RESPOND					
WOMEN SAFER	295	1.00	5.00	2.3390	1.02702
JUVENILE	295	1.00	5.00	2.5492	1.20237
SEXUAL	295	1.00	5.00	2.5661	1.09181
ASSAULT					
PROSTITUTION	295	1.00	5.00	2.6068	1.09480
MEN SAFER	295	1.00	5.00	2.6102	1.06613
STALKING	295	1.00	5.00	2.6136	1.06577
DRUNK/DISOR	295	1.00	5.00	2.6237	1.16531
MURDER	295	1.00	5.00	2.6915	1.15017
DRUG USE	295	1.00	5.00	2.8305	1.26104
SUICIDE	295	1.00	5.00	3.1966	1.25438
Valid N (listwise)	295				

Graph 2



Descriptive statistics were used to analyse the purposes of CCTV. Table 6 and Graph 2 above show the mean scores and reversed mean scores for what women identify as the purposes of CCTV. Table 5 shows that women strongly agree that ‘gather(ing) evidence’ is a purpose of CCTV ($M=1.77$, $SD.66$). Women also strongly agree that CCTV is to ‘help make Northbridge safer’ ($M=1.77$, $SD.68$) and to ‘enhance the management and control of Northbridge’ ($M=1.99$, $SD.76$). Women agree with the other purposes for installing CCTV surveillance in Northbridge with means ranging from ($M=2.01$ $SD.82$ to $M=2.69$ $SD.1.15$). The purposes women agree with are that CCTV is used to catch criminals, prevent crime and deter criminal behaviour, help business prevent theft and damage, help the police respond to incidents, make women safer, control young people and juvenile nuisance, reduce sexual assault, prevent/reduce

prostitution, make men safer, reduce/stalking and harassment, manage drunk and disorderly behaviour and prevent/reduce murder. Participants lean towards undecided for drug use ($M= 2.83, SD.1.26$) and are undecided about suicide ($M= 3.19, SD.1.25$).

Graph 2 shows the reversed means for the purposes women identified. The graph supports Table 5 and shows that women strongly agree that evidence, safety and management are purposes of CCTV. The graph also shows women agree that catch criminals, prevent crime and deter criminal behaviour, help business prevent theft and damage, help the police respond to incidents, and make women safer, are purposes of CCTV. Graph 2 shows that although women agree with the purposes of control young people and juvenile nuisance, reduce sexual assault, prevent/reduce prostitution, make men safer, reduce/stalking/harassment/ manage drunk and disorderly behaviour and prevent/reduce murder, they are more towards the undecided range. Graph 2 also shows that participants lean towards undecided for drug use and are undecided about suicide.

Table 7

Descriptive Statistics – Effectiveness of CCTV

	N	Minimum	Maximum	Mean	Std. Deviation
EVIDENCE	295	1.00	5.00	2.1525	.77840
SAFER	295	1.00	5.00	2.2441	.89676
MANAGEMENT	295	1.00	5.00	2.3153	.82825
CATCH	295	1.00	5.00	2.4068	.90949
CRIMINALS	295	1.00	5.00	2.5424	.99867
POLICE RESPOND	295	1.00	5.00	2.5458	1.00869
THEFT	295	1.00	5.00	2.5763	1.04334
PREVENT/DETER	295	1.00	5.00	2.7220	2.56428
WOMEN SAFER	295	1.00	5.00	2.8136	.98067
MEN SAFER	295	1.00	5.00	2.8949	1.08756
SEX ASS	295	1.00	5.00	2.9627	1.04749
STALKING	295	1.00	5.00	2.9864	1.19799
JUVENILE	295	1.00	5.00	2.9898	1.13235
PROSTITUTION	295	1.00	5.00	3.0136	1.11567
MURDER	295	1.00	5.00	3.0576	1.11883
DRUNK/DISOR	295	1.00	5.00	3.1932	1.16640
DRUG USE	295	1.00	5.00	3.3322	1.19159
SUICIDE	295	1.00	5.00		
Valid N (listwise)	295				

Graph 3

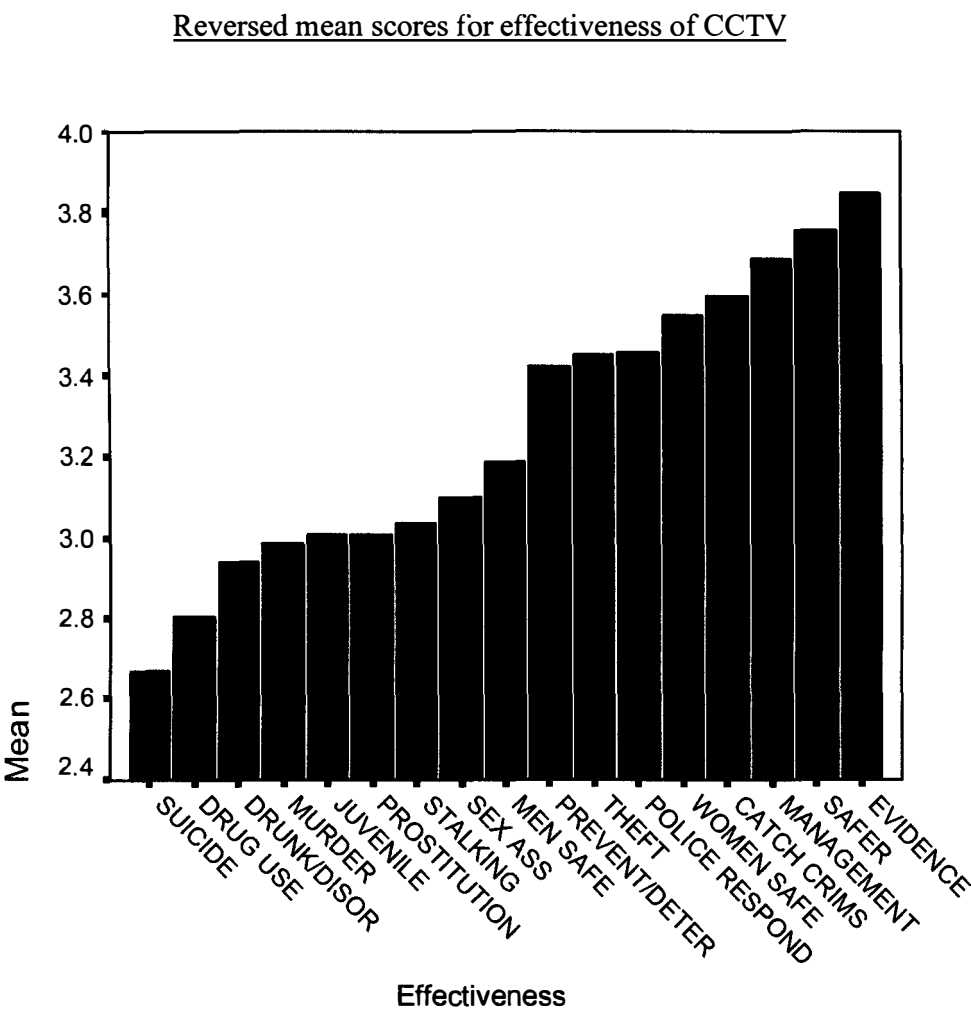


Table 7 and Graph 3 above show the mean scores and reversed mean scores for how effective women think CCTV is at meeting the purposes they identified. Table 7 shows that women agree that most of the purposes are effective. Women agree that CCTV is effective at gathering evidence ($M= 2.15$, $SD.77$), helping to make Northbridge safer ($M= 2.24$, $SD.89$), enhancing the management and control of Northbridge ($M= 2.31$, $SD.82$), and catching criminals ($M=2.49$, $SD.90$). Women also agree that CCTV helps police respond to incidents ($M= 2.54$, $SD.99$), helps business prevent theft and damage ($M= 2.54$, $SD1.00$), prevents crime and deters criminal behaviour ($M= 2.57$, $SD1.04$), and makes women safer ($M= 2.72$, $SD2.56$). Women further agree that CCTV is effective for

the following purposes: making men feel safer ($M= 2.81$, $SD.98$), reducing sexual assault ($M= 2.89$, $SD1.08$), reducing stalking ($M= 2.96$, $SD 1.04$), controlling young people and juvenile nuisance ($M= 2.98$, $SD 1.19$), and prostitution ($M= 2.98$, $SD 1.13$), however, the mean scores are on the lower end of the agree scale and are almost undecided. Women are undecided about the effectiveness of CCTV at meeting the following purposes: murder ($M= 3.01$, $SD1.11$), managing drunk and disorderly behaviour ($M= 3.05$, $SD1.11$), stopping drug use and drug trafficking ($M= 3.19$, $SD1.16$), and reducing suicide ($M= 3.33$, $SD1.19$).

Graph 3 shows the reversed means for how effective women think CCTV to be. The graph supports Table 7 and shows that women agree that CCTV is effective at gathering evidence, helping to make Northbridge safer, enhancing the management and control of Northbridge, catching criminals, helping police respond to incidents, helping business prevent theft and damage, preventing crime and deterring criminal behaviour, and making women safer. Women also agree that CCTV is effective at making men feel safer, reducing sexual assault, reducing stalking, controlling young people and juvenile nuisance, and prostitution, however, they agree less strongly with the effectiveness of these. Graph 2 shows women are undecided about murder, managing drunk and disorderly behaviour, stopping drug use and drug trafficking, and reducing suicide.

Question Two

What is women's level of awareness of CCTV in Northbridge?

11.5% (34) of participants were very aware, 17.3% (51) of participants were aware, 23.7% (70) of participants responded unsure, 28.8% (85) of participants were unaware and 18.6% (55) of participants were very unaware that CCTV in Northbridge may monitor them.

How women became aware.

54.6% (161) of participants became aware of CCTV via the media, 15.3% (45) of participants became aware of CCTV because they had seen them, 1.7% (5) of participants responded that they are obvious, 12.9% (38) of participants became aware of CCTV via their family or friends, and 5.8% (17) of participants responded other. The general response for the other responses was that the survey was the first they had heard of

CCTV. A further 2% (6) of participants became aware of CCTV via their past work experiences, and 7.8% (23) of participants did not respond to this question. 25.8% of participants responded to this question by circling a response twice. Of those who responded twice the highest response was 15.3% (45 participants) responding that they also became aware of CCTV via friends and family and a further 7.8% or 23 participants responded that they had seen the cameras. The two key ways people have become aware of CCTV is through their family/friends and the media.

How many cameras women think are in Northbridge.

Women were asked how many cameras they believed were in the Northbridge area. 13.7% (40) of women responded ten, 29.1% (85) of women responded thirty, 16.1% (47) of women responded sixty, 15.4% (45) of women responded eighty, .7% (2) of women responded ninety, 15.8% (46) of women responded one hundred, 8.6% (25) of women responded one hundred and twenty and .7% (2) of women responded one hundred and fifty. The mean number of cameras was ($M=59.7$, $SD\ 35.9$).

What the cameras look like.

Participants were asked to rate if they knew what the CCTV cameras look like on a scale from 1 (Definitely) to 5 (Definitely not). 7.5% of participants rated 1, 20% rated 2, 15.6% rated 3, 28.1% rated 4 and 28.8% rated 5.

Operational Procedures

Women were asked to rate if they knew much about how CCTV works on a scale from 1 (know lots) to 5 (know very little). 3.1% rated 1, 7.5% rated 2, 18.7% rated 3, 27.2% rated 4 and 43.5% rated 5.

How many years CCTV operational in Perth.

Women were also asked how many years (1,3,5,7,9,10 or 12 years) that they thought the CCTV system had been operational in Perth. 19.9% of women rated 3 years, 15.1% rated 5 years, 15.8% rated 7 years, 13.7% rated 9 years, 13.4% rated 10 years and 13.7% rated 12 years.

Public awareness

Question 7E asked participants if they thought that the City of Perth should do more to make the public aware of the CCTV system. Most participants strongly agreed that the public should be made more aware ($M=1.62$, $SD.87$).

Awareness and safety

Question 14 asked participants to rate on a scale from 1 (Yes definitely) to 5 (Definitely not) if they would feel more secure during the day and at night now they knew a bit more about CCTV from the survey. At night 1.7% of participants rated 1, 15.9% rated 2, 31.2% rated 3, 34.6% rated 4 and 16.6% rated 5. During the day 4.8% of participants rated 1, 21.4% rated 2, 41.8% rated 3, 21.1% rated 4 and 10.8% rated 5.

Question Three

What are women’s attitudes/feelings towards CCTV in Northbridge?

Table 8

Descriptive Statistics – Attitudes and feelings towards CCTV

	N	Minimum	Maximum	Mean	Std. Deviation
GOOD IDEA	295	1.00	5.00	1.6780	.74324
HELP POLICE	295	1.00	5.00	2.0000	1.40214
MORE POLICE	295	1.00	5.00	2.0169	.81423
NB SAFER	295	1.00	5.00	2.0814	.91109
ENHANCE SAFETY	295	1.00	5.00	2.2203	.83029
WOMEN SAFER	295	1.00	5.00	2.3390	1.05318
OK OBSERVED	295	1.00	5.00	2.4441	1.13513
ENJOY TIME	295	1.00	5.00	2.6373	1.01718
CRIME WOMEN	295	1.00	5.00	2.6983	1.04352
CIVIL LIBERTIES	295	1.00	5.00	3.0339	1.06851
MALE GAZE	295	1.00	5.00	3.2102	1.00165
DONT TRUST	295	1.00	5.00	3.2678	.93285
INVADE PRIVACY	295	1.00	5.00	3.3119	.97818
VICITMISATION	295	1.00	5.00	3.4102	.99209
TARGET GROUPS	295	1.00	5.00	3.4814	1.06848
WASTE MONEY	295	1.00	5.00	4.0237	.86275
Valid N (listwise)	295				

Graph 4

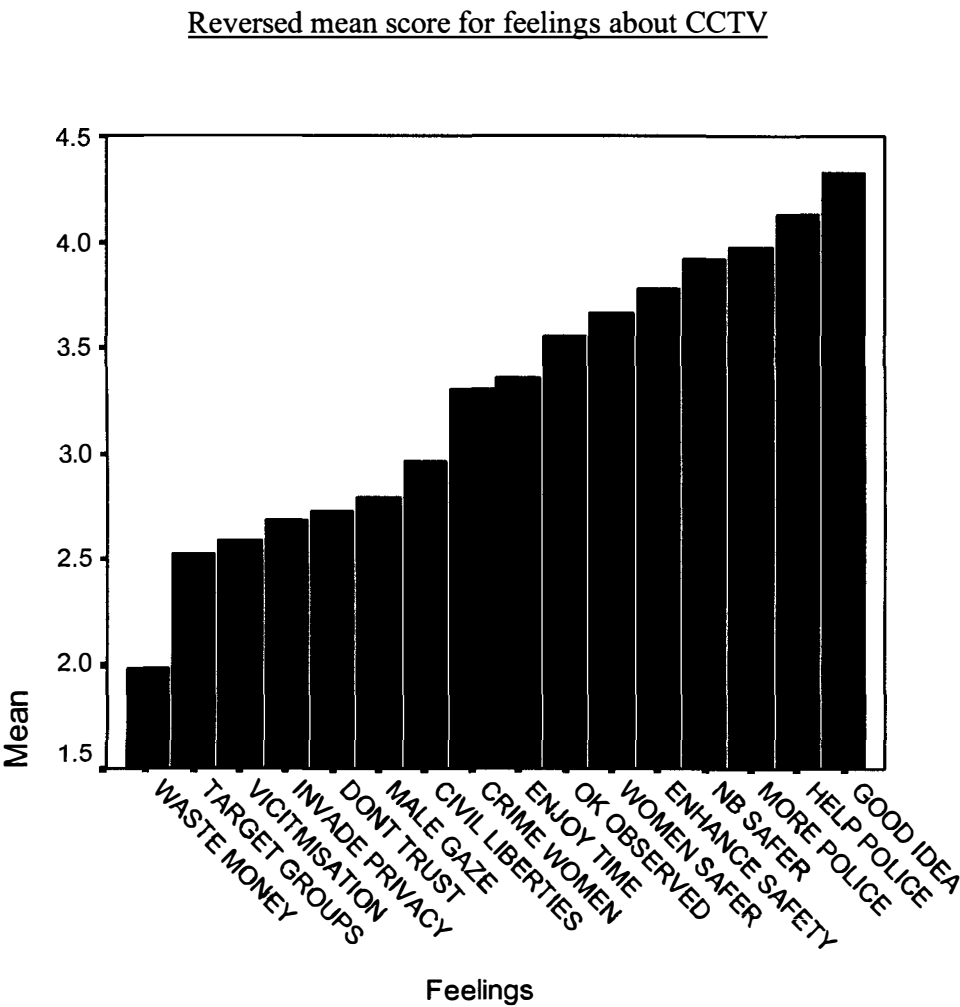


Table 8 and Graph 4 above show the mean scores for women’s feelings about various statements relating to CCTV in Northbridge. Table 8 shows that women strongly agree that CCTV is a good idea ($M= 1.67, SD.74$). Women agree that CCTV will help the police ($M= 2.00, SD1.40$), however, they also agree that they would prefer to see more police officers on the street ($M= 2.01, SD.81$). Women agree that CCTV will make Northbridge safer ($M= 2.08, SD.91$), will enhance community safety ($M= 2.22, SD.83$), and makes women safer ($M= 2.33, SD1.05$). Respondents also agree that women do not mind being observed by the cameras ($M= 2.44, SD1.13$), that they enjoy their time in Northbridge more due to the presence of CCTV ($M= 2.63, SD1.01$) and that without CCTV’s, there would be more crime against women in Northbridge ($M= 2.69, SD1.04$).

Women are undecided about the effect CCTV has on civil liberties ($M= 3.03$, SD 1.06), whether CCTV contributes to the ‘male gaze’ of men watching women ($M=3.21$, SD 1.00) and whether they trust the authorities to use the system fairly ($M= 3.26$, $SD.93$). Women are also undecided if CCTV invades people’s privacy ($M= 3.31$, $SD.97$), that CCTV cameras do not reduce the victimisation of women ($M= 3.41$, $SD.99$) and as to whether CCTV targets certain groups of people ($M= 3.48$, SD 1.06). Women disagree that CCTV makes no difference and is a waste of money ($M= 4.02$, $SD.86$).

Graph 4 shows the reversed means for women’s feelings about CCTV. The graph supports Table 8 and shows women strongly agree that CCTV is a good idea. Women agree that CCTV – helps police, makes Northbridge safer, enhances community safety, makes women safer, that women don’t mind being observed by the cameras, that they enjoy their time in Northbridge more due to the presence of CCTV and that without CCTV there would be more crime against women in Northbridge. Women agree that ‘they would rather see more police on the street’ and they strongly disagree that CCTV ‘makes no difference and is a waste of money’. Women are undecided about – civil liberties, male gaze, whether they trust the authorities, whether CCTV invades privacy, victimisation and if it targets people.

Question Four

What benefits and drawbacks do women associate with CCTV in the Northbridge area?

Benefits

Seventy-five women identified ‘gathering evidence’ as the greatest benefit of CCTV followed by ‘helps police’ with 63 women thinking this is a benefit. 42 women wrote ‘community safety’ as a benefit, 38 women wrote ‘makes me feel safer’, and 24 women ‘makes women safer’. ‘Feel more secure’, ‘better than nothing’, ‘targets hotspots’, ‘reduces theft’, ‘helps the elderly’ and ‘acts as a deterrent’ were each recorded by 10 women. 6 women thought that ‘encourage the use of the area’, ‘control juveniles’ and ‘help manage the area’ were benefits of CCTV. ‘Catch criminals’ and ‘reduce crime’ were each recorded 19 times by women as benefits of CCTV. 3 women wrote that CCTV has a benefit as a medical tool.

Drawbacks

Sixty-one women identified ‘cost’ as the greatest drawback of CCTV followed by ‘invades privacy’ with 60 women thinking this is a negative aspect. 33 women identified ‘people not being aware of the cameras’ as a drawback and 27 women thought that ‘authorities abusing the system’, and ‘it may be too late if something happens’ were drawbacks of CCTV. 21 women identified ‘reduces police on the street’, ‘targets people’ and ‘CCTV is not a preventative or deterrent’ as negative aspects. 6 women thought that ‘displacement’ and ‘CCTV spying on women’ were problems. 12 women identified ‘being watched’, ‘people may think it is safer when it is not’, ‘makes no difference’, ‘too much power to the authorities’, and ‘cannot be everywhere’ as drawbacks. 6 women thought that the cameras ‘may not be turned on’ and 2 women were concerned about the ‘use of records’.

Question Five

What else could be done to increase women’s feelings of security and their actual safety in Northbridge?

Table 9

Descriptive Statistics - Feelings of security in Northbridge

	N	Minimum	Maximum	Mean	Std. Deviation
POLICE OFFICERS	245	1.00	18.00	3.6245	3.76211
WOMEN POLICE	202	1.00	18.00	4.0842	3.37946
OTHER	5	1.00	7.00	4.8000	2.38747
LIGHTING	257	1.00	17.00	4.8677	3.02173
SECURITY	180	1.00	18.00	5.5278	4.50627
JUVENILES OTHER ACT	221	1.00	18.00	5.7828	3.52754
SHUTTLES TRANS	203	1.00	17.00	6.1478	3.56521
TAXIS	210	1.00	17.00	6.3143	3.15262
CULTURAL PROG'S	176	1.00	18.00	6.5455	3.50154
DEVELOPMENT	171	1.00	19.00	7.1462	3.53416
PUBLIC PHONES	162	1.00	17.00	7.1975	3.47813
PED WALKWAYS	199	1.00	17.00	7.2864	3.37899
INFO CRIME & RISK	152	1.00	18.00	7.3618	4.00422
MORE USE	154	1.00	18.00	7.7922	4.16753
EARLY INTERVENTION	137	1.00	18.00	8.0657	4.79154
MORE CCTV	148	1.00	18.00	8.6014	5.47566
EDUCATION	111	1.00	18.00	9.8018	4.98510
SECURITY POLES	112	2.00	18.00	10.1161	4.91870
SIGNAGE	85	1.00	18.00	12.2000	5.29780

Table 9 shows the mean and standard deviations for responses that women identify as things that would be effective in improving their safety. Women identify the need for more police officers ($M=3.62$, $SD\ 3.76$) and women police officers ($M= 4.08$, $SD\ 3.37$) as their top two choices. Lighting ($M= 4.86$, $SD\ 3.02$), having more security guards ($M=5.52$, $SD\ 4.50$) and giving juveniles other activities ($M=5.78$, $SD\ 3.52$) are also in the top six responses. More signage ($M=12.2$, $SD\ 5.29$), more security poles ($M= 10.1$, $SD\ 4.91$), safety education ($M= 9.80$, $SD\ 4.98$) and more CCTV ($M= 8.60$, $SD\ 5.47$) rate as the bottom four choices of things that women think would improve women's safety in Northbridge.

When looking at the individual descriptives tables for each response it can be seen what rating (1-18) participants gave each item. Below are some of the percentages and the rating (1-18) for particular safety improving initiatives.

More police officers

44.9% of women in the sample rated police officers as their number one choice, 15.5% as their second choice, 4.5% as their third choice and 8.2% as their fourth choice. Only .4% rated this as their seventeenth and eighteenth choices.

More women police officers

20.3% of women in the sample ranked this as their first choice, 22.8% as their second choice, 16.3% as their third choice and 9.9% as their fourth choice.

Other

1.7% of women overall rated 'other' as a response. All of these participants wrote, "Aboriginal people should be removed from the area". This information was written on other questionnaires under this question but other was not rated in the scale so these are not included as percentages.

Better street lighting

8.6% of women rated this as their first choice, 12.1% as their second choice, 18.3% as their third choice, 15.2% as their fourth choice, 13.6% as their fifth choice and only .4% as their seventeenth choice.

More security guards

6.1% of women in the sample rated this as their first choice, 22.2% as their second choice, 17.8% as their third choice, 12.8% as their fourth choice and 10.6% as their fifth choice.

Provide juveniles with other activities

6.8% of the sample ranked this as their first choice, 13.6% as their third choice, 13.1% as their fifth choice and only 1.4% as their eighteenth choice.

Shuttles to and from public transport

6.4% of women rated this as their first choice, 7.1% as their second choice, 6.1% as their third choice, 8.8% as their sixth choice and 1% as their eighteenth choice.

More taxi ranks/taxis

2.4% of participants rated this as their first choice, 6.2% as their second choice, 8.6% as their third choice, 14.3% as their fifth choice, 15.2% as their sixth choice and 1% as their seventeenth choice.

Culturally specific programs

6.3% of participants rated this as their first choice, 13.1% as their fifth choice and 1.7% as their eighteenth choice.

Safer guidelines for development

5.8% of women rated this as their first choice, 7% as their third choice, 11.7% as their fifth choice, 13.5% as their sixth choice, 15.2% as their seventh choice and only 1.2% as their eighteenth choice.

More public telephones

1.9% of women rated this as their first choice, 15.4% as their sixth choice, 9.9% as their seventh choice and .6% as their seventeenth choice.

After dark pedestrian walkways

2% of women rated this as their first choice, 9.5% as their fourth choice, 11.1% as their fifth choice and 13.6% as their seventh choice. Only .5% of women rated this as their seventeenth choice and no one as their eighteenth choice.

Information about crime risks and services

3.9% of women rated this as their first choice, 11.2% as their sixth choice. 11.2% as their ninth choice and .7% as their eighteenth choice.

Encourage more people to use the area

3.9% of participants rated this as their first choice, 6.5% as their second choice, 9.1% as their sixth choice and 1.3% as their eighteenth choice.

Early intervention programs

6.6% of participants rated this as their first response, 8.8% as their second choice, 7.2% as their third choice, 10.2% as their seventh choice and 5.1% as their eighteenth choice.

More CCTV cameras

7.4% of the sample rated this as their first choice, 10.8% as their fourth choice and 12.2% as their eighteenth choice.

Safety education

6.3% of participants rated this as their first choice, 12.6% as their ninth choice, 18% as their sixteenth choice and .9% as their eighteenth choice.

More security poles

4.5% of women rated this as their first choice, 13.4% as their seventh choice, 9.8% as their seventeenth choice and 6.3% as their eighteenth choice.

Signage on public toilet doors

3.5% of the sample rated this as their first choice, 11.8% as their fifteenth choice, 9.4% as their sixteenth choice, 22.4% as their seventeenth choice and 8.2% as their eighteenth choice.

Question Six

How do women feel (in general) about crime and safety in Northbridge?

Northbridge dangerous

Women were asked to rate whether they thought Northbridge was a dangerous place at night and during the day, if they were personally concerned about becoming the victim of a crime and what type of crimes they were concerned about and if they worried about risk to their loved ones from crime and criminals in Northbridge. The results show that women do not think Northbridge is a particularly dangerous place during the daytime ($M= 3.69$, $SD 1.05$) versus nighttime when women think Northbridge is a dangerous place ($M= 2.40$, $SD.98$).

Media portrayals

Question 7F and 7G asked women to rate if they thought media portrayals of the area were accurate and if they thought that crime rates had risen over the last five years. Women were undecided about media portrayals of the area being accurate or not ($M=3.25$, $SD\ 1.20$) and women in the sample thought that crime rates had risen over the last five years ($M= 2.08$, $SD.97$).

Victimisation concerns

Women were concerned about becoming the victim of crime in Northbridge ($M=2.37$, $SD\ 1.05$). Women were asked to rate crimes (assault, stalking, rape, theft, indecent assault, harassment, verbal abuse and damage to property) from one to eight with one being the crime they were the most concerned about. Each crime is discussed below.

Assault

17.6% of participants rated assault as the crime they were the most concerned about, 19% as their second concern, 29.1% as their third concern, 11.8% as their fifth concern and only 1% as the crime they were the least concerned about.

Stalking

1.4% of women rated stalking as the crime they were the most concerned about, 22.8% as their fourth concern, 20% as their fifth, 15.8% as their sixth and 17.9% as their eighth concern.

Rape

34.8% of women in the sample rated rape as the crime they were the most concerned about, 7.3% as their second concern, 8.4% as their third concern, 3.1% as their fourth concern, 4.5% rated rape as their fifth concern, 6.3% as their sixth concern, 12.9% as their seventh concern and 22.6% as their eighth concern.

Theft

8% of women rated theft as the crime they were the most concerned about, 7.6% as their second concern, 10.8% as their third concern, 15.6% as their fourth concern, 13.2% as their fifth concern, 9.8% as their sixth concern, 6.7% as their seventh concern and 17.7% as their eighth concern.

Indecent assault

8.7% of participants rated this as their first concern, 28.8% as their second concern, 12.2% as their third concern, 10.4% as their fourth concern, 12.5% as their fifth concern, 16.3% as their sixth concern, 8.7% their seventh concern, 2.4% rated indecent assault as the crime they were the least concerned about.

Harassment

14.6% of women in the sample rated this as their highest concern, 13.9% as their second concern, 11.5% as their third concern, 23.6% as their fourth concern, and 21.9% as their fifth concern, 8.7% as their sixth response, 5.2% as their seventh response and .7% or 2 participants rated harassment as their eighth response.

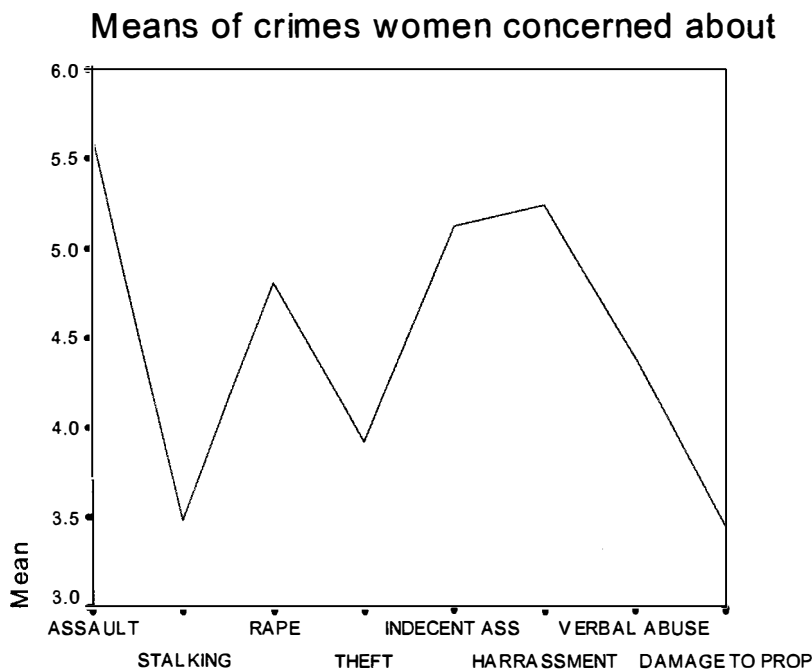
Verbal abuse

12.5% of participants rated this as their first concern, 14.5% as their second concern, 12.1% as their third concern, 6.9% as their fourth concern, 8.3% as their fifth concern, 21.1% as their sixth concern, 14.5% as their seventh concern and 14.5% as the crime they were the least concerned about.

Damage to property

3.1% of women rated this as their first concern .6% as their second concern, 12.9% as their third concern, 11.1% as their fourth concern, 8.4% as their fifth concern, 12.2% as their sixth concern, 24% as their seventh concern, and 1.6% as the crime they were the least concerned about.

Graph 5



Graph 5 shows the reversed means for crimes women are concerned about. The graph shows that women are concerned about assault, rape, indecent assault, and harassment. Women are less concerned about stalking, theft, verbal abuse and damage to property although from information presented further below these are crimes that women in the 55-60 age range are concerned about in comparison to younger women.

Family and friends

Women worry about risk to their loved ones from crime and criminals in Northbridge ($M= 2.34, SD.98$).

The results show that assault is the crime women are the most concerned about, followed by harassment.

Table 10

Descriptive Statistics – Places where women feel concerned for their safety

	N	Minimum	Maximum	Mean	Std. Deviation
RAILWAY STATION	295	1.00	5.00	1.8644	.88559
ALONE	295	1.00	5.00	1.8949	.95430
PARKING CAR	295	1.00	5.00	2.1356	1.01783
FEW PEOPLE	293	1.00	5.00	2.2116	1.06127
AFTER MIDNIGHT	295	1.00	5.00	2.3898	1.15495
TAXI	295	1.00	5.00	2.5525	1.12929
GENERALLY SAFE	295	1.00	5.00	2.6780	.98009
WORK/STUDY	293	1.00	5.00	2.9317	1.07371
NIGHTCLUB	295	1.00	5.00	3.3356	1.12754
FEMALE FRIENDS	295	1.00	5.00	3.4237	1.07860
LARGE CROWD	293	1.00	5.00	3.5700	1.26032
SECURITY STAFF	295	1.00	5.00	3.8136	.98759
MALE FRIENDS	295	1.00	5.00	3.8576	.99321
RESTAURANT	295	1.00	5.00	3.9898	.92024
Valid N (listwise)	293				

Areas where women feel unsafe

Table 10 above shows that women feel very unsafe walking over to the railway station at night ($M= 1.86$, $SD.88$), and when they are alone in Northbridge ($M= 1.89$, $SD.95$). Women in the sample feel unsafe when parking their car ($M= 2.13$, $SD 1.01$), when there are few people around ($M=, 2.21$, $SD 1.06$), and after midnight ($M= 2.38$, $SD 1.15$). Women also feel unsafe when calling a taxi ($M= 2.55$, $SD 1.12$) and going to work or study ($M=2.93$, $SD 1.07$). Women are undecided about their safety when in a nightclub ($M= 3.33$ $SD 1.12$), when they are with female friends ($M= 3.42$, $SD 1.01$), and in a large crowd ($M= 3.57$, $SD 1.26$). Women also report feeling undecided about their safety when security staff are present ($M= 3.81$, $SD.98$), when male friends are present ($M= 3.85$, $SD.99$) and in a restaurant ($M= 3.98$, $SD.92$), however, for the above three they lean towards feeling safe. Women generally rate this area as unsafe at night ($M= 2.67$, $SD.98$).

Safety concerns

Question 13 asked participants to draw on a map of Northbridge the areas they would be the most concerned to go at night. 21% of responses indicated that the train station would be a place they would be afraid to go at night. 17.4% of responses indicated that Russell Square (a dark park on the outskirts of Northbridge) would be a place they would be afraid to go at night, 14.6% of responses indicated that the Cultural Centre (an area where indigenous people congregate on the weekends) would be a place they would be afraid to go, 10.7% of responses indicated that the walkway over to the Entertainment Centre car park (a dark and isolated pedestrian walkway over to a dark and isolated car park) would be a place they would be afraid of and 7.6% of responses indicated that they would be afraid of the whole area at night. A further 4.9% of women in the sample indicated that they would be afraid of the Entertainment Centre car park, 3.8% of responses indicated that they would be afraid of the Wilson and CPP car parks (some undercover and some open air car parks at various locations in Northbridge), 3.8% of responses indicated they would be concerned on Lake Street (a street made up of cafés, restaurants, and bars), 3.1% of responses indicated they are concerned about the area around Perth TAFE (an area where students go to study, isolated at night), and 3.1% of responses indicated that Aberdeen Street (a street made up of closed businesses at night and a night club) would be a place they would be afraid to go at night. An additional 2.9% of responses indicated that they are concerned about safety on Roe Street (a busy traffic road that is well lit), 2.7% of responses indicated that Beaufort Street (a well lit traffic road slightly on the edges of Northbridge) would be a place they would be afraid to go at night, 2.5% of responses indicated concern about James Street (the main club, restaurant and bar strip of Northbridge) and 1.8% of responses indicated worry about Newcastle Street (a dark and isolated street on the perimeter of Northbridge's entertainment area).

Factor Analysis

Because the scores were skewed, factor analysis with Varimax rotations was conducted, using SPSS for windows, on questions 5 (purposes of CCTV), 6 (effectiveness of CCTV), 8 and 6 together (feelings and attitudes about CCTV and

purposes) and question 12 (how safe women feel under different circumstances). The results are discussed in turn below.

Question Five – Purposes of CCTV

Three factors emerged here and were named; women's issues, police issues and juvenile issues. The women's issues component was made up of the following purposes; reduce sexual assault, reduce stalking/harassment, make women feel safer and prevent/reduce prostitution and had 29.8% of the variance. The second factor was police issues and was made up of the following purposes; help make Northbridge safer, gather evidence, help the police respond to incidents, help business prevent theft and damage, prevent crime and deter criminal behaviour, catch criminals and enhance the management and control of Northbridge. This factor accounted for 20.9% of the variance. The third component was juvenile issues and consisted of the following purposes; control young people and juvenile nuisance, stop drug use and drug trafficking and manage drunk and disorderly behaviour. This component accounted for 19% of the variance.

Question Six – Effectiveness of CCTV

There was a less clear grouping of this question with some of the items being blurred, however, two components emerged. The first component was women's and juvenile issues. This component is made up of the following; stopping drug use and drug trafficking, reducing suicide, managing drunk and disorderly behaviour, controlling young people and juvenile nuisance, reducing stalking/harassment, reducing sexual assault and preventing/reducing prostitution. This accounted for 38.9% of the variance.

The second component was police issues and was made up of the following; gathering evidence, helping make Northbridge safer, enhancing the management and control of Northbridge, helping the police respond to incidents, helping business prevent theft and damage, and catching criminals. This accounted for 28.2% of the variance.

Question Eight – Feelings and attitudes towards CCTV and Question 5 - Purposes

Four factors emerged here and were named; serious offences, pro CCTV issues, social sensitivity and police issues. The serious offence component was made up of the following statements; stopping drug use and drug trafficking, reducing suicide, preventing/reducing murder, reducing stalking/harassment, preventing/reducing

prostitution, reducing sexual assault, managing drunk and disorderly behaviour, and controlling young people and juvenile nuisance. This accounted for 23.9% of the variance.

The pro CCTV component was made up of the following statements and purposes; 'I enjoy my time in Northbridge more due to the presence of CCTV', 'without CCTV's there would be more crime against women in Northbridge', making women feel safer, helping make Northbridge safer, 'CCTV enhances community safety', and 'women do not mind being observed by the cameras'. This accounted for 17.2% of the total variance.

The social sensitivity component was made up of the following statements; 'CCTV unfairly targets certain groups of people', 'CCTV cameras invade peoples privacy', 'CCTV might be a threat to civil liberties', 'CCTV contributes to the male gaze of men watching women', and 'I do not trust the authorities to use the system fairly'. This component accounted for 11.8% of the variance.

The police issues component was made up of the following statements and purposes; gathering evidence, catching criminals, helping the police respond to incidents, and 'it will help the police'. This component accounted for 10.4% of the variance.

Question twelve – Safety under certain circumstances.

Two components emerged here and were named transit/safety issues and social issues. The transit and safety component was made up of the following situations; parking your car, there are few people around, calling a taxi, after midnight, walking over to the railway station, and when you are alone. This accounted for 34.7% of the variance.

The second component, social issues, was made up of the following factors; with male friends, in a restaurant, with female friends, in a large crowd, and in a nightclub. This component accounted for 25.7% of the variance.

Other factors

Age

A one-way Analysis of Variance was chosen to analyse the interactions between age and various other questions. All assumptions of the ANOVA were adhered to. The results that revealed a significant relationship are discussed below.

The interaction between age and purposes.

Help police respond to incidents

Because older women tend to think, that 'helping the police respond to incidents' is a purpose of CCTV compared to younger groups who agree but lean towards undecided, a one-way ANOVA was performed. This showed a significant difference across age [$F(4, 290) = 2.36; p < .01$]. Women in the 25-34 age range had a mean score of ($M=2.32, SD1.03$) in comparison to the 55-60 age group who had a mean score of ($M=1.90, SD1.94$).

Manage drunk and disorderly behaviour

Because older women tend to think, that 'managing drunk and disorderly behaviour' is a purpose of CCTV compared to younger groups who lean towards undecided, a one-way ANOVA was performed. This showed a significant difference across age [$F(4, 290) = 3.14; p < .01$]. Women in the 18-24 age range had a mean score of ($M=2.85, SD1.22$), in comparison to the 55-60 age group who had a mean score of ($M=2.33, SD1.24$).

Stop drug use and drug trafficking

Because younger women (18-24) and older women (35-60) agree with the above purpose of CCTV compared to women aged 25-34 who are undecided, a one-way ANOVA was performed. This showed a significant difference across age [$F(4, 290) = 2.48; p < .01$]. Women in the 18-24 age range had a mean score of ($M=2.96, SD1.13$), those in the 25-34 age range had a mean score of ($M=3.08, SD1.22$), those in the 35-44 age range had a mean score of ($M=2.61, SD1.26$), those in the 44-54 age range had a mean score of ($M=2.74, SD1.34$) and those in the 55-60 age group had a mean score of ($M=2.39, SD1.41$).

Control young people and juvenile nuisance

Because all age groups agree with the above purpose, with women in the 35-44 age range agree more strongly, a one-way ANOVA was performed. This showed a significant difference across age [$F(4, 290) = 2.88; p < .01$]. Women in the 18-24 range agree but lean towards undecided with a mean score of ($M=2.74, SD1.21$), women in the 25-34 age range have a mean score of ($M=2.77, SD1.15$), those in the 35-44 range have a mean score of ($M=2.22, SD1.04$), those in the 44-54 range have a mean score of ($M=2.29, SD1.19$), and those in the 55-60 age range have a mean score of ($M=2.42, SD1.20$).

Make women safer

Because women aged 55-60 strongly agree compared to other age groups who agree that a purpose of CCTV is to make women safer, a one-way ANOVA was performed. This showed a significant difference across age [$F(4, 290) = 3.49; p < .01$]. Women in the 18-24 age range had a mean score of ($M=2.48, SD1.10$), those in the 25-34 age range had a mean score of ($M=2.55, SD.98$), those in the 35-44 age range had a mean score of ($M=2.25, SD1.04$), those in the 44-54 age range had a mean score of ($M=2.14, SD.88$) and those in the 55-60 age group who had a mean score of ($M=1.87, SD.85$).

Make men safer

Because older women tend to agree more strongly than younger women that a purpose of CCTV is to make men safer, a one-way ANOVA was performed. This showed a significant difference across age [$F(4, 290) = 4.14; p < .01$]. Women in the 18-24 age range had a mean score of ($M=2.85, SD1.14$), compared to women in the 55-60 age group who had a mean score of ($M=2.18, SD1.07$).

Reduce sexual assault

Because older women agree more strongly, that a purpose of CCTV is to reduce sexual assault, than younger age groups who agree but lean towards undecided, a one-way ANOVA was performed. This showed a significant difference across age [$F(4, 290) = 2.25; p < .01$]. Women in the 18-24 age range had a mean score of ($M=2.69, SD1.09$), those in the 25-34 age range had a mean score of ($M=2.77, SD1.03$), those in the 35-44 age range had a mean score of ($M=2.25, SD1.11$), those in the 44-54 age range had a mean score of ($M=2.40, SD1.01$) and those in the 55-60 age group had a mean score of ($M=2.21, SD1.19$).

Reduce stalking/harassment

Because older women agree more strongly than younger age groups who agree but lean towards undecided that a purpose of CCTV is to reducing stalking and harassment, a one-way ANOVA was performed. This showed a significant difference across age [$F(4, 290) = 2.43$; $p < .01$]. Women in the 18-24 age range had a mean score of ($M=2.74$, $SD1.00$), those in the 25-34 age range had a mean score of ($M=2.77$, $SD.98$), those in the 35-44 age range had a mean score of ($M=2.59$, $SD1.17$), those in the 44-54 age range had a mean score of ($M=2.44$, $SD1.01$) and those in the 55-60 age group had a mean score of ($M=2.18$, $SD1.18$).

Reduce suicide

Because older women agree that a purpose of CCTV is to reduce suicide compared to younger women who are undecided or disagree, a one-way ANOVA was performed. This showed a significant difference across age [$F(4, 290) = 6.97$; $p < .01$]. Women in the 18-24 age range had a mean score of ($M=3.47$, $SD1.08$), those in the 25-34 age range had a mean score of ($M=3.45$, $SD1.12$), those in the 35-44 age range had a mean score of ($M=3.25$, $SD1.32$), those in the 44-54 age range ($M=2.72$, $SD1.21$), and those in the 55-60 age range had a mean score of ($M=2.45$, $SD1.45$).

Prevent/reduce murder

Because the 25-34 age group tend to be undecided and all other age groups agree that a purpose of CCTV is preventing and reducing murder, a one-way ANOVA was performed. This showed a significant difference across age [$F(4, 290) = 3.23$; $p < .01$]. Women in the 18-24 age range had a mean score of ($M=2.76$, $SD1.06$), those in the 25-34 age range had a mean score of ($M=3.00$, $SD1.11$), those in the 35-44 age range had a mean score of ($M=2.66$, $SD1.28$), those in the 44-54 age range ($M=2.36$, $SD.94$), and those in the 55-60 age range had a mean score of ($M=2.33$, $SD1.31$).

The interaction between age and effectiveness*Helping make Northbridge safer*

Because women aged 18-44 think CCTV is less effective than women aged 55-60 at making Northbridge safer, a one-way ANOVA was performed. This showed a significant difference across age [$F(4, 290) = 4.01$; $p < .01$]. Women in the 18-24 age

range had a mean score of ($M=2.32$, $SD.89$), those in the 25-34 age range had a mean score of ($M=2.38$, $SD.92$), those in the 35-44 age range had a mean score of ($M=2.38$, $SD.91$), those in the 44-54 age range ($M=2.02$, $SD.79$), and those in the 55-60 age range had a mean score of ($M=1.78$, $SD.78$).

Preventing crime and deterring criminal behaviour

Because women aged 25-34 agree but tend towards undecided, women aged 55-60 agree and other women agree, a one-way ANOVA was performed. This showed a significant difference across age [$F(4, 290) = 3.74$, $p < .01$]. Women in the 25-34 age range had a mean score of ($M=2.82$, $SD1.08$), compared to those in the 55-60 age range had a mean score of ($M=2.09$, $SD1.10$).

Helping the police respond to incidents

Because the 18-24 age group tend to be undecided and all other age groups agree that CCTV is effective at helping the police respond to incidents, a one-way ANOVA was performed. This showed a significant difference across age [$F(4, 290) = 5.204$; $p < .01$]. Women in the 18-24 age range had a mean score of ($M=2.76$, $SD.93$), those in the 25-34 age range had a mean score of ($M=2.61$, $SD.98$), those in the 35-44 age range had a mean score of ($M=2.66$, $SD1.00$), those in the 44-54 age range ($M=2.21$, $SD.90$), and those in the 55-60 age range had a mean score of ($M=2.03$, $SD1.07$).

Helping business prevent theft and damage

Because those in the 55-60 age group think CCTV is much more effective than the other age groups, a one-way ANOVA was performed. This showed a significant difference across age [$F(4, 290) = 6.59$; $p < .01$]. Women in the 18-24 age range had a mean score of ($M=2.82$, $SD.99$), those in the 25-34 age range had a mean score of ($M=2.67$, $SD.98$), those in the 35-44 age range had a mean score of ($M=2.53$, $SD1.04$), those in the 44-54 age range ($M=2.27$, $SD.87$), and those in the 55-60 age range had a mean score of ($M=1.90$, $SD.87$).

Manage drunk and disorderly behaviour

Because younger women (18-34) tend towards disagree, 35-44 age group are undecided, 44-54 age group agree but leaning towards undecided and older women (55-60) are slightly on the agree side, a one-way ANOVA was performed. This showed a significant difference across age [$F(4, 290) = 6.32$; $p < .01$]. Women in the 18-24 age

range had a mean score of ($M=3.63$, $SD.96$), those in the 25-34 age range had a mean score of ($M=3.24$, $SD1.09$), those in the 35-44 age range had a mean score of ($M=2.94$, $SD1.08$), those in the 44-54 age range ($M=2.78$, $SD1.12$), and those in the 55-60 age range had a mean score of ($M=2.39$, $SD1.27$).

Stopping drug use and drug trafficking

Because younger women (18-34) tend to disagree, 35-44 age group is undecided, 44-54 age group agree but lean towards undecided and older women (55-60) slightly on the agree side, a one-way ANOVA was performed. This showed a significant difference across age [$F(4, 290) = 6.37$; $p < .01$]. Women in the 18-24 age range had a mean score of ($M=3.54$, $SD.89$), those in the 25-34 age range had a mean score of ($M=3.31$, $SD1.13$), those in the 35-44 age range had a mean score of ($M=3.05$, $SD1.13$), those in the 44-54 age range ($M=2.97$, $SD1.22$), and those in the 55-60 age range had a mean score of ($M=2.48$, $SD1.46$).

Controlling young people and juvenile nuisance

Because younger women (18-34) tending towards disagree, 35-44 age group undecided, 44-54 age group agree but leaning towards undecided and older women (55-60) slightly on the agree side, a one-way ANOVA was performed. This showed a significant difference across age [$F(4, 290) = 3.92$; $p < .01$]. Women in the 18-24 age range had a mean score of ($M=3.15$, $SD1.06$), those in the 25-34 age range had a mean score of ($M=3.28$, $SD1.16$), those in the 35-44 age range had a mean score of ($M=2.77$, $SD1.07$), those in the 44-54 age range ($M=2.82$, $SD1.30$), and those in the 55-60 age range had a mean score of ($M=2.45$, $SD1.41$).

Catching criminals

Because all age groups agree that CCTV is effective although the 18-24 age group lean towards undecided and 55-60 think CCTV is more effective, a one-way ANOVA was performed. This showed a significant difference across age [$F(4, 290) = 7.01$; $p < .01$]. Women in the 18-24 age range had a mean score of ($M=2.70$, $SD.98$), compared with those in the 55-60 age range who had a mean score of ($M=1.81$, $SD.76$).

Gathering evidence

Because all age groups agree that CCTV is effective at gathering evidence, but those in the 55-60 age group think CCTV is very effective, a one-way ANOVA was

performed. This showed a significant difference across age [$F(4, 290) = 3.65$; $p < .01$]. Women in the 18-24 age range had a mean score of ($M=2.27$, $SD=.78$), compared with those in the 55-60 age range who had a mean score of ($M=1.72$, $SD=.67$).

Making women safer

Because those in the 18-34 age group think CCTV is effective but are almost undecided, 35-44 age group think CCTV is effective, 44-54 undecided and the 55-60 age group think CCTV is very effective at making women feel safer in Northbridge, a one-way ANOVA was performed. This showed a significant difference across age [$F(4, 290) = 1.36$; $p < .01$]. Women in the 18-24 age range had a mean score of ($M=2.80$, $SD=1.00$), those in the 25-34 age range had a mean score of ($M=2.88$, $SD=1.02$), those in the 35-44 age range had a mean score of ($M=2.46$, $SD=.92$), those in the 44-54 age range ($M=3.17$, $SD=1.00$), and those in the 55-60 age range had a mean score of ($M=1.93$, $SD=.93$).

Making men safer

Because younger women (18-34) are undecided about men's safety and all other women agree that CCTV is effective at making men safer, a one-way ANOVA was performed. This showed a significant difference across age [$F(4, 290) = 10.9$ $p < .01$]. Women in the 18-24 age range had a mean score of ($M=3.14$, $SD=.90$), those in the 25-34 age range had a mean score of ($M=3.04$, $SD=.93$), those in the 35-44 age range had a mean score of ($M=2.70$, $SD=.94$), those in the 44-54 age range ($M=2.46$, $SD=.85$), and those in the 55-60 age range had a mean score of ($M=2.08$ $SD=.97$).

Reducing sexual assault

Because women (18-54) are in the undecided range compared to older women who agree, a one-way ANOVA was performed. This showed a significant difference across age [$F(4, 290) = 5.62$; $p < .01$]. Women in the 18-24 age range had a mean score of ($M=3.03$, $SD=1.01$), those in the 25-34 age range had a mean score of ($M=3.21$, $SD=.93$), those in the 35-44 age range had a mean score of ($M=2.81$, $SD=1.06$), those in the 44-54 age range ($M=2.70$, $SD=1.08$), and those in the 55-60 age range had a mean score of ($M=2.24$, $SD=1.19$).

Reducing stalking/harassment

Because younger women are in the undecided range compared to older women who agree, a one-way ANOVA was performed. This showed a significant difference

across age [$F(4, 290) = 8.93$; $p < .01$]. Women in the 18-24 age range had a mean score of ($M=3.26$, $SD=.90$), those in the 25-34 age range had a mean score of ($M=3.21$, $SD=.93$), those in the 35-44 age range had a mean score of ($M=2.85$, $SD=1.01$), those in the 44-54 age range ($M=2.63$, $SD=1.05$), and those in the 55-60 age range had a mean score of ($M=2.24$, $SD=1.22$).

Reducing suicide

Because women in the 18-34 age range are undecided tending towards disagree, 35-44 women are undecided, 44-54 agree but tending towards undecided and 55-60 agree that CCTV is effective at reducing suicide, a one-way ANOVA was performed. This showed a significant difference across age [$F(4, 290) = 8.64$; $p < .01$]. Women in the 18-24 age range had a mean score of ($M=3.59$, $SD=.96$), those in the 25-34 age range had a mean score of ($M=3.62$, $SD=1.00$), those in the 35-44 age range had a mean score of ($M=3.37$, $SD=1.21$), those in the 44-54 age range ($M=2.95$, $SD=1.25$), and those in the 55-60 age range had a mean score of ($M=2.45$, $SD=1.45$).

Enhancing the management and control of Northbridge

Because all women are on the agree side of things but women in the 55-60 age group strongly agree, a one-way ANOVA was performed. This showed a significant difference across age [$F(4, 290) = 5.69$; $p < .01$]. Women in the 18-24 age range had a mean score of ($M=2.52$, $SD=.86$), compared to those in the 55-60 age range who had a mean score of ($M=1.84$, $SD=.75$).

Preventing/reducing murder

Because women in the 18-44 age range are undecided leaning towards disagree and older groups agree that CCTV is effective at preventing/reducing murder, a one-way ANOVA was performed. This showed a significant difference across age [$F(4, 290) = 7.28$; $p < .01$]. Women in the 18-24 age range had a mean score of ($M=3.20$, $SD=.97$), those in the 25-34 age range had a mean score of ($M=3.27$, $SD=.96$), those in the 35-44 age range had a mean score of ($M=3.14$, $SD=1.23$), those in the 44-54 age range ($M=2.57$, $SD=1.01$), and those in the 55-60 age range had a mean score of ($M=2.33$, $SD=1.31$).

Preventing/reducing prostitution

Because women in the 18-34 age range are undecided tending towards disagree, women in the 35-44 age range agree but almost undecided, 44-54 agree but slightly

leaning towards undecided and women in the 55-60 age range agree, a one-way ANOVA was performed. This showed a significant difference across age [$F(4, 290) = 5.32$; $p < .01$]. Women in the 18-24 age range had a mean score of ($M=3.21$, $SD=.99$) compared to those in the 55-60 age range who had a mean score of ($M=2.36$, $SD=1.38$).

The interaction between age and awareness

The only significant awareness factor with age is media portrayals. Because younger women (18-34) think that media portrayals of Northbridge are inaccurate versus women in the 55-60 age group who think that media portrayals are accurate, a one-way ANOVA was performed. This showed a significant difference across age [$F(4, 290) = 3.80$; $p < .01$]. Women in the 18-24 age range had a mean score of ($M=3.31$, $SD=1.12$), those in the 25-34 age range had a mean score of ($M=3.58$, $SD=1.08$), those in the 35-44 age range had a mean score of ($M=3.18$, $SD=1.21$), those in the 44-54 age range ($M=3.17$, $SD=1.18$), and those in the 55-60 age range had a mean score of ($M=2.62$, $SD=1.45$).

The interaction between age, feelings, and attitudes

It will make Northbridge safer

Because older age groups agree more strongly and women in the 25-34 age group are less agreeing than the other age groups, a one-way ANOVA was performed. This showed a significant difference across age [$F(4, 290) = 6.00$; $p < .01$]. Women in the 18-24 age range had a mean score of ($M=2.19$, $SD=.77$), those in the 25-34 age range had a mean score of ($M=2.35$, $SD=.91$), those in the 35-44 age range had a mean score of ($M=2.01$, $SD=.92$), those in the 44-54 age range ($M=1.91$, $SD=1.01$), and those in the 55-60 age range had a mean score of ($M=1.51$, $SD=.79$).

Women do not mind being observed by cameras

Because the older age groups agree more strongly and women in the 18-34 age tend towards undecided, a one-way ANOVA was performed. This showed a significant difference across age [$F(4, 290) = 5.45$; $p < .01$]. Women in the 18-24 age range had a mean score of ($M=2.75$, $SD=1.13$), compared to those in the 55-60 age range who had a mean score of ($M=1.81$, $SD=.98$).

CCTV makes women feel safer

Because the older age groups agree more strongly and women in the 25-34-age tend towards undecided, a one-way ANOVA was performed. This showed a significant difference across age [$F(4, 290) = 6.40$; $p < .01$]. Women in the 18-24 age range had a mean score of ($M=2.50$, $SD1.04$), those in the 25-34 age range had a mean score of ($M=2.60$, $SD.98$), those in the 35-44 age range had a mean score of ($M=2.38$, $SD1.08$), those in the 44-54 age range ($M=2.04$, $SD.95$), and those in the 55-60 age range had a mean score of ($M=1.66$, $SD.95$).

CCTV makes no difference and is a waste of money

Because women in all the age groups disagree with this statement although younger people tend to be slightly undecided and older women tend towards strongly disagree, a one-way ANOVA was performed. This showed a significant difference across age [$F(4, 290) = 4.27$; $p < .01$]. Women in the 18-24 age range had a mean score of ($M=3.85$, $SD.92$), those in the 25-34 age range had a mean score of ($M=3.91$, $SD.81$), those in the 35-44 age range had a mean score of ($M=3.96$, $SD.86$), those in the 44-54 age range ($M=4.31$, $SD.75$), and those in the 55-60 age range had a mean score of ($M=4.39$, $SD.74$).

I enjoy my time in Northbridge more due to the presence of CCTV.

Because women in the 18-24 age range are undecided, 25-34 agree but almost undecided, 35-54 agree, and women in the 44-60 age groups strongly agree, a one-way ANOVA was performed. This showed a significant difference across age [$F(4, 290) = 15.5$; $p < .01$]. Women in the 18-24 age range had a mean score of ($M=3.03$, $SD.87$), those in the 25-34 age range had a mean score of ($M=2.90$, $SD.96$), those in the 35-44 age range had a mean score of ($M=2.57$, $SD1.00$), those in the 44-54 age range ($M=2.12$, $SD.87$), and those in the 55-60 age range had a mean score of ($M=1.81$, $SD.95$).

CCTV enhances community safety

Because women in all the age groups agree but women in the 55-60 age group strongly agree, a one-way ANOVA was performed. This showed a significant difference across age [$F(4, 290) = 7.09$; $p < .01$]. Women in the 18-24 age range had a mean score of ($M=2.38$, $SD.72$), those in the 25-34 age range had a mean score of ($M=2.44$, $SD.86$), those in the 35-44 age range had a mean score of ($M=2.16$, $SD.74$), those in the 44-54 age

range ($M=2.02$, $SD.84$), and those in the 55-60 age range had a mean score of ($M=1.66$ $SD.85$).

Without CCTV's, there would be more crime against women in Northbridge.

Because younger women stand out against older women as undecided, a one-way ANOVA was performed. This showed a significant difference across age [$F(4, 290) = 10.2$; $p<.01$.]. Women in the 18-24 age range had a mean score of ($M=2.93$, $SD.90$), those in the 25-34 age range had a mean score of ($M=3.01$, $SD.99$), those in the 35-44 age range had a mean score of ($M=2.74$, $SD1.15$), those in the 44-54 age range ($M=2.27$, $SD.94$), and those in the 55-60 age range had a mean score of ($M=1.90$, $SD.87$).

CCTV cameras do not reduce the victimisation of women

Because younger women are in the undecided range and older women disagree, a one-way ANOVA was performed. This showed a significant difference across age [$F(4, 290) = 6.09$; $p<.01$.]. Women in the 18-24 age range had a mean score of ($M=3.26$, $SD.87$), those in the 25-34 age range had a mean score of ($M=3.21$, $SD.81$), those in the 35-44 age range had a mean score of ($M=3.31$, $SD1.06$), those in the 44-54 age range ($M=3.61$, $SD1.15$), and those in the 55-60 age range had a mean score of ($M=4.09$, $SD.97$).

The interaction between age and question 9, 9a, 10, 11

Do you think Northbridge is a dangerous place during the day?

Because older age groups are more concerned about safety during the daytime than younger groups, a one-way ANOVA was performed. This showed a significant difference across age [$F(4, 290) = 11.0$; $p<.01$.]. Women in the 18-24 age range had a mean score of ($M=4.02$, $SD.93$), those in the 25-34 age range had a mean score of ($M=3.85$, $SD.95$), those in the 35-44 age range had a mean score of ($M=3.77$, $SD.96$), those in the 44-54 age range ($M=3.38$, $SD1.03$), and those in the 55-60 age range had a mean score of ($M=2.78$, $SD1.21$).

Do you think Northbridge is a dangerous place at night?

Because all age groups think Northbridge is dangerous at night but older age groups are more likely to think it is very dangerous, a one-way ANOVA was performed. This showed a significant difference across age [$F(4, 290) = 4.82$; $p<.01$.]. Women in

the 18-24 age range had a mean score of ($M=2.49$, $SD.99$), those in the 25-34 age range had a mean score of ($M=2.62$, $SD1.03$), those in the 35-44 age range had a mean score of ($M=2.44$, $SD.76$), those in the 44-54 age range ($M=2.27$, $SD.99$), and those in the 55-60 age range had a mean score of ($M=1.78$, $SD.89$).

I worry a great deal about the safety of my loved ones from crime and criminals in Northbridge

Because women in all age groups worry about their friends and family in Northbridge but women in the 44-60-age range tend to be more concerned than younger groups, a one-way ANOVA was performed. This showed a significant difference across age [$F(4, 290) = 10.4$; $p < .01$]. Women in the 18-24 age range had a mean score of ($M=2.43$, $SD1.01$), those in the 25-34 age range had a mean score of ($M=2.75$, $SD1.17$), those in the 35-44 age range had a mean score of ($M=2.51$, $SD1.11$), those in the 44-54 age range ($M=1.95$, $SD.95$), and those in the 55-60 age range had a mean score of ($M=1.48$, $SD.83$).

Are you personally concerned about becoming the victim of a crime in Northbridge?

Because all women in the sample were worried about becoming a victim of crime in Northbridge, however, women in the 55-60 age group were considerably more worried, a one-way ANOVA was performed. This showed a significant difference across age [$F(4, 290) = 2.97$; $p < .01$]. Women in the 18-24 age range had a mean score of ($M=2.47$, $SD1.11$), those in the 25-34 age range had a mean score of ($M=2.47$, $SD1.07$), those in the 35-44 age range had a mean score of ($M=2.51$, $SD1.04$), those in the 44-54 age range ($M=2.29$, $SD1.04$), and those in the 55-60 age range had a mean score of ($M=1.81$, $SD.95$).

Question 10a asked participants to rate crimes (assault, stalking, rape, theft, indecent assault, harassment, verbal abuse and damage to property) from one to eight with one being the crime they are the most concerned about. Those items of evidence that had a significant result were selected for further analysis. The results of the interaction with age are interesting and are discussed below.

Assault

Because a greater percentage of younger women are concerned about assault compared to older women who are in the middle ground, a one-way ANOVA was

performed which showed a significant difference across age [$F(4, 284) = 3.41$; $p < .01$]. The Post Hoc Test shows a difference between 18-24 versus 55-60 $p = 0.14$. Women in the 18-24 age range had a mean score of ($M=2.97$, $SD1.58$) in comparison to the 55-60 age group who had a mean score of ($M=4.30$, $SD2.12$).

Stalking

Because younger women (18-44) are more concerned about stalking than older women (44-60), with those in the 25-34 age range the most concerned, a one-way ANOVA was performed which showed a significant difference across age [$F(4, 280) = 5.93$; $p < .01$]. Post Hoc comparisons showed a difference between women aged 25-34 and those aged 55-60 $p = 0.11$. Participants in the 25-34 range had a mean score of ($M=4.94$, $SD1.86$) compared to the 55-60 age range ($M=6.24$, $SD1.85$).

Rape

Because rape showed the biggest difference across age, with women in the 18-24 range being the most concerned, with means going up incrementally, and those in the 55-60 range the least concerned, a one-way ANOVA was performed. This showed a significant difference across age [$F(4, 282) = 14.5$; $p < .01$]. Post Hoc comparisons showed a difference between women aged 18-24 versus those aged 44-54 $p = 0.02$, and those age 55-60 $p = 0.00$. A difference was also found between those aged 25-34 versus those aged 44-54 $p = 0.37$ and 55-60 $p = 0.00$. There was a difference between women in the 35-44 versus 55-60 $p = 0.00$. The mean scores are 18-24 ($M=3.23$, $SD2.61$), 25-34 ($M=3.62$, $SD2.92$), 35-44 ($M=3.79$, $SD2.83$), 44-54 ($M=5.28$, $SD2.81$) and women aged 55-60 ($M=6.96$, $SD1.79$).

Theft

Because a greater percentage of older women are concerned about theft compared to younger women, a one-way ANOVA was performed which showed a significant difference across age [$F(4, 283) = 3.52$; $p < .01$]. Post Hoc Tests showed a difference between those in the 55-60 age bracket versus 25-34 $p = 0.16$. The mean scores show women in the 25-34 range at ($M=5.57$, $SD2.08$) compared to the 55-60 group ($M=3.93$, $SD1.63$).

Indecent Assault

Because a greater percentage of younger women (18-44) are concerned about indecent assault than older women (55-60) who are not concerned, a one-way ANOVA was performed which showed a significant difference across age [$F(4, 283) = 10.6$; $p < .01$]. Post Hoc Comparisons show a difference for those in the 18-24, 25-34 and 35-44 age groups versus 55-60 $p = 0.00$ in all three cases. The means scored are ($M = 3.53$, $SD 1.91$) for 18-24, ($M = 3.37$, $SD 1.87$) for 25-34, ($M = 3.43$, $SD 1.88$) for 35-44, ($M = 4.34$, $SD 1.92$) for 44-54 and ($M = 5.63$, $SD 1.67$) for women aged 55-60.

Harassment

Because older women (55-60) are concerned about harassment compared to younger women (18-44), a one-way ANOVA was performed which showed a significant difference across age [$F(4, 283) = 4.87$; $p < .01$]. Post Hoc Comparisons show a difference for those in the 18-24 $p = 0.08$, those in the 25-34 range $p = 0.09$ and women in the 35-44 age group $p = 0.08$ versus women aged 55-60. The means scored are ($M = 3.94$, $SD 1.68$) for 18-24, ($M = 3.98$, $SD 1.67$) for 25-34, ($M = 4.05$, $SD 1.71$) for 35-44, ($M = 3.45$, $SD 1.69$) for 44-54 and ($M = 2.63$, $SD 1.83$) for women aged 55-60.

Verbal Abuse

Because a greater percentage of older women are concerned about verbal abuse than younger women who lean towards not being concerned, a one-way ANOVA was performed which showed a significant difference across age [$F(4, 284) = 10.6$; $p < .01$]. Post Hoc comparisons showed a difference between women aged 18-24 versus those aged 44-54 $p = 0.06$ and those aged 55-60 $p = 0.00$. A difference was also found between those aged 25-34 versus those aged 55-60 $p = 0.01$. There was a difference between women in the 35-44 versus those aged 44-54 $p = 0.15$ and 55-60 $p = 0.00$. The mean scores are 18-24 ($M = 5.36$, $SD 2.38$), 25-34 ($M = 4.76$, $SD 2.29$), 35-44 ($M = 4.98$, $SD 2.30$), 44-54 ($M = 3.80$, $SD 2.18$) and women aged 55-60 ($M = 2.69$, $SD 1.46$).

Damage to Property

Because older women (55-60) are more concerned about damage to property compared to younger women (18-44) who are not very concerned, a one-way ANOVA was performed. This showed a significant difference across age [$F(4, 282) = 11.7$; $p < .01$]. Post Hoc comparisons showed a difference between women aged 18-24 versus

those aged 44-54 $p=0.09$ and those aged 55-60 $p=0.00$. A difference was also found between those aged 25-34 versus those aged 55-60 $p=0.00$. There was a difference between women in the 35-44 versus those aged 55-60 $p=0.00$. The mean scores are 18-24 ($M=6.04$, $SD1.67$), 25-34 ($M=6.04$, $SD2.06$), 35-44 ($M=5.86$, $SD2.22$), 44-54 ($M=4.76$, $SD2.30$) and women aged 55-60 ($M=3.75$, $SD1.52$).

The interaction between age and question 12 – feeling safe or unsafe in Northbridge

How safe do you feel or would you feel being in Northbridge at night when:

You are alone

Because women in all the age brackets feel very unsafe when alone and women in the 25-34 age group feel unsafe, a one-way ANOVA was performed. This showed a significant difference across age [$F(4, 290) = 2.76$; $p < .01$]. Women in the 18-24 age range had a mean score of ($M=1.95$, $SD1.07$), those in the 25-34 age range had a mean score of ($M=2.07$, $SD1.04$), those in the 35-44 age range had a mean score of ($M=1.94$, $SD.81$), those in the 44-54 age range ($M=1.76$, $SD.86$), and those in the 55-60 age range had a mean score of ($M=1.45$, $SD.56$).

With female friends

Because older people tend to feel more unsafe than younger people, a one-way ANOVA was performed. This showed a significant difference across age [$F(4, 290) = 5.05$; $p < .01$]. Women in the 18-24 age range had a mean score of ($M=3.37$, $SD1.06$), those in the 25-34 age range had a mean score of ($M=3.77$, $SD.99$), those in the 35-44 age range had a mean score of ($M=3.48$, $SD.94$), those in the 44-54 age range ($M=3.38$, $SD1.01$), and those in the 55-60 age range had a mean score of ($M=2.78$, $SD1.31$).

With male friends

Because all people feel safe with male friends, particularly 25-34 age group, a one-way ANOVA was performed. This showed a significant difference across age [$F(4, 290) = 4.50$; $p < .01$]. Women in the 18-24 age range had a mean score of ($M=3.91$, $SD.98$), those in the 25-34 age range had a mean score of ($M=4.14$, $SD.76$), those in the 35-44 age range had a mean score of ($M=3.85$, $SD.85$), those in the 44-54 age range ($M=3.72$, $SD1.01$), and those in the 55-60 age range had a mean score of ($M=3.30$, $SD1.35$).

In a large crowd

Because women in the 18-34 age range feel safe in a large crowd, 35-54 are undecided and the 55-60 age range feel unsafe, a one-way ANOVA was performed. This showed a significant difference across age [$F(4, 290) = 26.69; p < .01$]. Women in the 18-24 age range had a mean score of ($M=4.02, SD.95$), those in the 25-34 age range had a mean score of ($M=4.08, SD.85$), those in the 35-44 age range had a mean score of ($M=3.50, SD1.19$), those in the 44-54 age range ($M=3.10, SD1.33$), and those in the 55-60 age range had a mean score of ($M=2.03, SD1.23$).

After midnight

Because all women feel unsafe after midnight but women in the 55-60 age range feel very unsafe, a one-way ANOVA was performed. This showed a significant difference across age [$F(4, 290) = 17.2; p < .01$]. Women in the 18-24 age range had a mean score of ($M=2.75, SD1.14$), those in the 25-34 age range had a mean score of ($M=2.82, SD1.19$), those in the 35-44 age range had a mean score of ($M=2.20, SD.93$), those in the 44-54 age range ($M=2.02, SD1.01$), and those in the 55-60 age range had a mean score of ($M=1.27, SD.45$).

Parking your car

Because all women feel unsafe after midnight but women who are between the ages of 44-60 feel very unsafe, a one-way ANOVA was performed. This showed a significant difference across age [$F(4, 290) = 8.12; p < .01$]. Women in the 18-24 age range had a mean score of ($M=2.46, SD1.04$), those in the 25-34 age range had a mean score of ($M=2.28, SD1.10$), those in the 35-44 age range had a mean score of ($M=2.05, SD.71$), those in the 44-54 age range ($M=1.85, SD.95$), and those in the 55-60 age range had a mean score of ($M=1.45, SD.83$).

Taxi

Because all women feel unsafe, 18-24 leaning towards undecided and women aged 55-60 feel very unsafe, a one-way ANOVA was performed. This showed a significant difference across age [$F(4, 290) = 11.9; p < .01$]. Women in the 18-24 age range had a mean score of ($M=2.93, SD1.04$), those in the 25-34 age range had a mean score of ($M=2.71, SD1.19$), those in the 35-44 age range had a mean score of ($M=2.61,$

$SD1.07$), those in the 44-54 age range ($M=2.19$, $SD1.01$), and those in the 55-60 age range had a mean score of ($M=1.57$, $SD.75$).

In a restaurant

Because women in the 18-44-age range feel safe in a restaurant, those aged 44-54 are undecided but leaning toward safe, and women in the 55-60-age range are undecided, a one-way ANOVA was performed. This showed a significant difference across age [$F(4, 290) = 11.2$; $p < .01$]. Women in the 18-24 age range had a mean score of ($M=4.13$, $SD.74$), those in the 25-34 age range had a mean score of ($M=4.27$, $SD.75$), those in the 35-44 age range had a mean score of ($M=4.09$, $SD.78$), those in the 44-54 age range ($M=3.76$, $SD.91$), and those in the 55-60 age range had a mean score of ($M=3.15$, $SD1.30$).

In a nightclub

Because women in the 18-34 age group are undecided but leaning towards safe, 35-44 undecided, 44-54 unsafe but leaning towards undecided, and 55-60 unsafe, a one-way ANOVA was performed. This showed a significant difference across age [$F(4, 290) = 22.3$; $p < .01$]. Women in the 18-24 age range had a mean score of ($M=3.72$, $SD.97$), those in the 25-34 age range had a mean score of ($M=3.78$, $SD.96$), those in the 35-44 age range had a mean score of ($M=3.35$, $SD.95$), those in the 44-54 age range ($M=2.63$, $SD1.00$), and those in the 55-60 age range had a mean score of ($M=2.27$, $SD1.12$).

When security staff are present

Because women in the 18-24 age group are undecided but almost safe, 25-34 safe, 35-44 undecided but leaning towards safe, and 55-60 undecided, a one-way ANOVA was performed. This showed a significant difference across age [$F(4, 290) = 5.35$ $p < .01$]. Women in the 18-24 age range had a mean score of ($M=3.96$, $SD.86$), those in the 25-34 age range had a mean score of ($M=4.00$, $SD.97$), those in the 35-44 age range had a mean score of ($M=3.87$, $SD.80$), those in the 44-54 age range ($M=3.61$, $SD1.03$), and those in the 55-60 age range had a mean score of ($M=3.18$, $SD.98$).

Walking over to the railway station

Because women in the 18-24 age group feel very unsafe but leaning towards unsafe, 25-34 unsafe, and 35-60 age range very unsafe, a one-way ANOVA was performed. This showed a significant difference across age [$F(4, 290) = 2.75$; $p < .01$].

Women in the 18-24 age range had a mean score of ($M=1.98$, $SD.94$), those in the 25-34 age range had a mean score of ($M=2.00$, $SD.88$), those in the 35-44 age range had a mean score of ($M=1.83$, $SD.74$), those in the 44-54 age range ($M=1.72$, $SD.85$), and those in the 55-60 age range had a mean score of ($M=1.48$, $SD.87$).

Going to work or study

Because women in the 18-34 age range are undecided, 35-44 unsafe but almost undecided, and 44-60 unsafe, a one-way ANOVA was performed. This showed a significant difference across age [$F(4, 290) = 7.88$; $p < .01$]. Women in the 18-24 age range had a mean score of ($M=3.24$, $SD1.00$), those in the 25-34 age range had a mean score of ($M=3.10$, $SD1.03$), those in the 35-44 age range had a mean score of ($M=2.94$, $SD.97$), those in the 44-54 age range ($M=2.55$, $SD1.03$), and those in the 55-60 age range had a mean score of ($M=2.24$, $SD1.11$).

There are few people around

Because women aged 18-44 feel unsafe, and those aged 44-60 feel very unsafe, a one-way ANOVA was performed. This showed a significant difference across age [$F(4, 290) = 10.05$; $p < .01$]. Women in the 18-24 age range had a mean score of ($M=2.53$, $SD1.08$), those in the 25-34 age range had a mean score of ($M=2.31$, $SD1.13$), those in the 35-44 age range had a mean score of ($M=2.35$, $SD.93$), those in the 44-54 age range ($M=1.87$, $SD.94$), and those in the 55-60 age range had a mean score of ($M=1.36$, $SD.54$).

Do you think that people in this neighbourhood are generally safe?

Because women in the 18-24 age range feel unsafe but leaning towards undecided, 25-34 undecided, 35-54 unsafe, and 55-60 very unsafe, a one-way ANOVA was performed. This showed a significant difference across age [$F(4, 290) = 15.7$; $p < .01$]. Women in the 18-24 age range had a mean score of ($M=2.94$, $SD.92$), those in the 25-34 age range had a mean score of ($M=3.01$, $SD.82$), those in the 35-44 age range had a mean score of ($M=2.68$, $SD.92$), those in the 44-54 age range ($M=2.31$, $SD.93$), and those in the 55-60 age range had a mean score of ($M=1.72$, $SD.83$).

CHAPTER FOUR

DISCUSSION

DISCUSSION

The primary issue analysed in this research was whether closed circuit television increases women's feelings of safety and security in a city setting. The findings demonstrate that women in this study are overwhelmingly supportive of CCTV and think it is effective, but still feel unsafe in the city at night. More specifically the research shows what purpose women attach to CCTV surveillance and how effective they believe CCTV is at meeting these purposes.

Purposes

The findings of this research imply that women strongly agree or agree with the following purposes of CCTV (list in order from most identified purpose to least identified purpose):

- Gathering evidence,
- Helping make Northbridge safer,
- Enhancing the management and control of Northbridge,
- Catching criminals,
- Preventing crime and deterring criminal behaviour,
- Helping business prevent theft and damage,
- Helping the police respond to incidents,
- Making women safer,
- Controlling young people and juvenile nuisance,
- Reducing sexual assault,
- Preventing/reducing prostitution,
- Making men safer,
- Reducing stalking and harassment,
- Managing drunk and disorderly behaviour,
- Preventing/reducing murder, and
- Stopping drug use and drug trafficking.
- Women were undecided about the role in preventing/reducing suicide.

Women in the interviews, who believe CCTV has a deterrent effect, identified many of the above purposes. From the findings of both study A and study B, it can be concluded that women strongly agree or agree that CCTV has many intended functions in the city setting. These findings support earlier research by Honess and Charman (1992) whose studies revealed the public think CCTV is used for security reasons, to prevent crime, for general surveillance, to detect crime, to stop trouble, to make people feel safer, and for the safety of the public. Other studies have found the public (both male and female) rates the following five purposes as the main uses of CCTV. (1) The prevention of anti-social behaviour by acting as a deterrent, (2) a reduction in the public's fear of crime; (3) an increase in detection of anti-social behaviour due to greater visibility of offences; (4) an increase in arrest rate and prosecution of offences due to the availability of evidence and effective deployment of resources; and (5) a use as a general site management tool (Bernard, 1988; Horne, 1996; Norris and Armstrong, 1999; Reeve, 1998). These studies show what the public think CCTV can achieve in a city setting. In terms of differences, the current sample shows that women did not rate reducing juvenile anti-social behaviour, or managing drunk and disorderly behaviour, highly as a function of CCTV in comparison to the third purpose identified above.

It can be seen above that women in the current sample rate that CCTV makes them feel safer in the city and below, this is further supported as women claim that CCTV is effective at making them feel safer. These results are contradictory as women in the sample assert that they feel unsafe in the city at night. If women truly believed that CCTV was effective at making them safer they would not rate feeling unsafe so highly. This is an interesting finding and one that is not explored in other research.

Participants in the current study may have identified more uses of CCTV than in other research as they were provided with a comprehensive list of purposes and were not required to generate a list, which is a method employed in some other research. The results here are unexpected as the researcher anticipated finding a more diverse range of opinions in relation to the purposes and effectiveness of CCTV, that is, that there would be a larger spread of scores from strongly agrees to strongly disagree. Because the results are positively skewed, it did not allow correlational tests to be performed on the data. Future research may want to consider allowing participants to generate their own list of

purposes before presenting them with a more comprehensive list or to change the questions in some way by using a larger scale (e.g., using a 10 point scale instead of a five point scale). This may help to increase the spread of scores and eliminate skewed findings.

The results show that older women are more likely to strongly agree with the purposes than younger women. In terms of uses relating to safety, older women agree more strongly than younger women that a purpose of CCTV is to make the city safer and to make women feel safer, with women in the 18-34 age range tending towards undecided about the second purpose. This finding is interesting as it suggests that younger women, who are the more frequent users of the area under surveillance, do not agree as strongly that one of the functions of CCTV is to make them feel safer. However, below, you can see that younger women did think CCTV was effective at making them feel safer although not as strongly as older participants.

Effectiveness

The findings of this research indicate how effective women thought CCTV was at meeting the purposes they identified. The results show that women think the following purposes are effective (list in order from most effective to least effective):

- Gathering evidence,
- Helping to make Northbridge safer,
- Enhancing the management and control of Northbridge,
- Catching criminals,
- Helping the police respond to incidents,
- Helping business prevent theft and damage,
- Preventing crime and deterring criminal behaviour,
- Making women feel safer,
- Making men feel safer,
- Reducing sexual assault,
- Reducing stalking
- Controlling young people and juvenile nuisance, and
- Preventing/reducing prostitution.

Women were undecided about the effectiveness of CCTV to manage drunk and disorderly behaviour, reduce/prevent murder, stop drug use and drug trafficking and reduce suicide. These findings fit into assumption three of the social constructionist framework, which relates to individual perspectives remaining stable over time despite changes in the environment, and may reflect women's perspectives of certain crimes and crime reduction techniques that have remained stable over time despite changes in the external environment. For example, women may have the view that it is difficult to tackle drug related offences and/or these offences frequently occur in Northbridge. Individuals may believe that any method used will be ineffective at reducing these offences and dispelling their individual fear, as these offences are perceived to be frequently occurring and threatening. Women therefore do not think CCTV will be effective at reducing these offences and their attitudes remain stable. You can see below that evaluation research has found CCTV is ineffective at reducing some crimes and that these are crimes women in this sample also believe CCTV is ineffective at reducing.

Although the above results are individual perceptions of effectiveness, it is interesting to also view the information in light of research on the actual effectiveness of CCTV. The results on perceptions of effectiveness of CCTV are in some cases supported by the evaluation literature. The literature shows that CCTV in public is effective at reducing crime, including burglary and theft, catching criminals, preventing assault, gathering evidence and helping the police (Armitage, Smyth and Pease, 1999; Brown, 1995; Mahalinham, 1996; and Sarno, 1996). In addition it has been argued that CCTV has little effect on drug related offences or serious assaults or murder (Armitage, Smyth and Pease, 1999; Sarno, 1996; Skinns, 1998). It is interesting that the results on perceptions of effectiveness appear to mirror the findings on the actual effectiveness of CCTV.

Women in the interviews were less sure about the effectiveness of CCTV but did consider that it may help people to feel more secure and help to assist the police. From these findings, it can be concluded that women strongly agree or agree that CCTV is effective at meeting some of the purposes they identified. The results show that older women are likely to agree more strongly than younger women that CCTV is effective. These findings support earlier research by Honess and Charman (1992), whose studies

revealed that participants thought CCTV was very effective or quite effective at crime detection, crime prevention, and making people feel safer. Research by the Central Research Unit in Scotland found that participants thought CCTV was effective at catching criminals and making people feel safer. The current findings also support research in Australia which found the public consider CCTV is effective at deterring crime, helping the police and making the city safer (Caranich, 2003).

The findings of this research, in terms of the purposes and effectiveness of closed circuit television, are consistent with past research findings and show that women think CCTV is very effective or effective at meeting most of the purposes they identified.

Awareness

The second research question explored in this study was how aware women were of CCTV in Northbridge. The interviews in study A showed that five of the six women interviewed were aware of CCTV. The survey in Study B showed that 28.8% (85) of participants were very aware or aware of CCTV, 23.7% (70) of participants were unsure or undecided and 47.1% (140) of participants were unaware or very unaware that CCTV would monitor them. These findings on awareness are considerably lower than findings elsewhere in Australia where more than 50% and up to 85% of participants are aware of CCTV (Wilson and Sutton, 2003). The findings of this research may have been inconsistent with these studies due to methodological reasons such as the wording of questions relating to awareness. It is hard to determine, as examples of questionnaires are not included in any of the research discussed. It is also possible that people in Perth have lower levels of awareness than elsewhere in Australia, as there are no signage or footpath markers. Research in Melbourne shows that 63% of respondents became aware of CCTV by means of these methods so this may have contributed to the low levels of awareness in Perth (Caranich, 2003).

When asked how they became aware of CCTV surveillance the majority of participants indicated they became aware through the media or via friends and family. This is consistent with research in Australia where 28% of participants found out about CCTV through the media (Caranich, 2003). Friends and family were not raised in any of the literature presented. However, in Melbourne 83% of respondents found out through

word of mouth. This supports the current research where 28.2% of participants found out about CCTV from friends and family and 54.6% through the media, however, the results seem to be the reverse of the findings in Melbourne with more participants finding out about CCTV via the media than through friends and family.

Almost all participants responded to this awareness question (how they became aware of CCTV), which raises doubt about their answer to the previous question (how aware they actually were). If participants were unaware of CCTV, how could they then respond that they became aware via the media or friends and family? The wording of these questions may have confused participants or respondents may have felt that they had to respond to all of the questions, perhaps making it unclear how much they really knew about CCTV.

To ascertain other levels of awareness participants were asked to rate how many cameras they believed were in the area, if they knew what the cameras looked like and how long they thought the system had been operational. The majority of women believed there are 85 cameras in Northbridge, that they knew very little about the operational side of CCTV or what the cameras looked like and that the system had been running for seven years. This information further confirmed that women in Perth know a modest amount about CCTV. None of the research discussed in the literature review asked similar questions to determine participants' levels of awareness so further comparisons cannot be made.

The findings of this research indicate that participants strongly agree that the City of Perth should do more to make the public aware of the CCTV system, and if they are made more aware, they will feel safer, and think CCTV will be more effective. This result was also found in a study conducted in Perth in 2002 by Connell Wagner Pty Ltd. They found 35% of participants strongly agreed or agreed that the City should do more to raise awareness of the system. Research by Wilson and Sutton (2003) found that 85.4% of those aware of CCTV feel safer. Considering research in Australia shows participants find out about CCTV via signage and the current findings show women are still fearful in Northbridge, it may be useful for the City to raise awareness of the system and in turn one would expect levels of fear to decrease.

This is supported by results of the current research where participants rated they would feel more secure in Northbridge now they knew more about CCTV (from the survey). 48.8% of participants rated that they would feel more secure at night now they knew more about CCTV and 68% rated they would feel safer during the day.

Attitudes about CCTV

The third research question explored in this study was women's attitudes towards CCTV. The results show that women think CCTV (list presented in order from most agree to least agree):

- Is a good idea,
- Helps the police,
- Makes Northbridge safer,
- Enhances community safety,
- Makes women safer,
- That women do not mind being observed by the cameras,
- That women enjoy their time more due to the presence of CCTV,
- That without CCTV there would be more crime against women in Northbridge, and
- That they would rather see more police on the street.

Women strongly disagree that CCTV makes no difference and is a waste of money. Women are undecided about civil liberties, if CCTV contributes to the male gaze of men watching women, whether they trust the authorities, whether CCTV invades privacy, if it reduces the victimisation of women and if it targets people.

The results show that older women are likely to agree more strongly than younger women with these statements about CCTV. Younger women lean towards undecided for many of these statements. This is supported by research in Australia where those who felt less safe at night (the elderly) reported more support for CCTV (Caraniche, 2003). This is further supported in research by Bennett and Gelsthorpe (1997) whose study shows that older people are significantly more likely to say that CCTV is effective than younger people. These findings on age differences are interesting and are consistent across the

research. As younger women are the main users of the area, it seems appropriate to conduct further research into the motivations behind these attitudes.

The pattern of findings implies that women feel strongly about CCTV, think it is a good idea and helps to make the city centre safer. This supports earlier research by Bennett and Gelsthorpe (1997) whose studies revealed that two-thirds of respondents thought CCTV was a good idea. It is further supported by research in Scotland where participants thought CCTV would help the police, make people feel safer, enhance community safety, attract people to use the city centre, and that they did not mind being observed by the cameras (The Scottish Office, 1999).

The findings of this research indicate that women think CCTV enhances community safety, makes them personally feel safer and that they enjoy their time in Northbridge more due to the presence of CCTV, however, older women have stronger feelings than younger women. This conclusion is supported by past research demonstrating that public support for closed circuit television is high and that women in Australia have positive attitudes about CCTV (or negative attitudes about crime).

One interesting outcome was observed with issues relating to the negative aspects of CCTV. The literature raises many concerns about the use of CCTV in public space. Women in the sample were undecided about issues relating to civil liberties, privacy and trust of the authorities to use the system fairly. This supports earlier research by Honess and Charman (1992) whose studies revealed, via public discussions, that the public are concerned about the cameras being abused by authorities, and they cannot trust authorities to only use the cameras for the public good. Civil liberty and privacy concerns were raised in a study by Liberty (1989). What is interesting is Honess and Charman further found that women participants are more likely to endorse positive statements such as, 'people who control CCTV can be trusted' and 'CCTV cameras do not invade people's privacy', in comparison to men. Overall, the current findings contradict this as women are undecided and in some cases lean towards disagreeing with statements concerning trust of authorities, privacy and the system being used to target certain groups. The findings of this research may have been inconsistent with Honess and Charman due to methodological reasons such as, using different statements, and the current sample being made up entirely of women. Specifically, Honess and Charman

presented statements like those used above (e.g., the more of these cameras we have the better) and asked participants if they supported them or not, whereas, the current study asked participants to rate their responses, on a Likert scale, for a range of statements and with some statements positively worded and some negatively worded. A factor that needs to be considered is the current sample did not have a male gender component so therefore gender comparisons cannot be made. If a male sample was included, it may have been shown that women were more supportive of the statements than men were.

Benefits and drawbacks

The fourth research question explored in this study was what benefits and drawbacks women associated with CCTV in Northbridge. The findings demonstrated that women identify the greatest benefit of CCTV as its ability to gather evidence. This was closely followed by its ability to help the police, for community safety, and making women feel safer. These benefits are supported by the answers women gave to question one in relation to the purposes and effectiveness of CCTV and by the qualitative responses in study A. This finding supports earlier research by Brown (1995) who found that 57% of his sample thought a benefit of CCTV was to make people feel safer and that CCTV is identified as being generally effective.

The results show that women associate some drawbacks with the use of CCTV. It should be noted that elsewhere in the questionnaire women have not identified or responded to many of the questions in a negative way and that they may have only responded negatively here as they were specifically asked for two drawbacks of CCTV. The findings show that women identify cost as the greatest drawback of CCTV, closely followed by invading privacy. These findings are supported by the qualitative responses in study A. Women also thought that not being aware of CCTV was a drawback as were authorities abusing the system, reducing numbers of police on the street, displacement and people thinking it is safer when it may not be. These findings support earlier research discussed above and research by Bennett and Gelsthorpe (1997). Their study revealed that the public has concerns about the cameras raising the public's belief that the area in question is safe when it may not be. Displacement is a central criticism of CCTV in the literature and claims that CCTV does not deter crime but moves it to surrounding areas

(Barr and Pease, 1990). Cost is not raised in any of the literature discussed but was a concern for a large portion of the current sample (both study A and B), as was abuse of the system by authorities, which was also raised by participants elsewhere in the questionnaire. This may be due to the public's lack of awareness and understanding about the operation of the system. The pattern of findings suggests that women do not associate many drawbacks with CCTV and these concerns may only have been raised as women were specifically asked to think of the negative aspects.

Increasing feelings of safety

The fifth question addressed in this study was what else women thought could be done to increase their feelings of security and their actual safety. Women were asked to rate a list of strategies from 1-18 with one being the thing they thought would most improve their safety. The results are interesting and show that women rate having more police officers on the street as the thing that would improve their safety the most and more women police officers was rated second. Lighting, more security guards, and providing juveniles with other places to go also rated highly. You can see from Table 8 (page 94) in the results section that women rated other measures, such as shuttles to and from public transport, better access to taxis, more public telephones and pedestrian walkways, highly as things that would improve their safety.

These findings support earlier research by Cohen et al (1978), Hale (1996), Bell (1998), research by the Scottish Government (2000), and research by the City of Perth (2002). They all found similar results, that is, participants identified more crime prevention than victimisation measures to reduce crime. Hale (1996) identifies improved street lighting, and greater police presence as key measures outlined in the literature. Research in Scotland into public transport shows that women report wanting better access to public transport and police traveling on services to improve their safety. Research in Australia by the City of Perth and Bell has found women's safety is enhanced by good street lighting, police presence, secure public transport, access to this transport and safe places to wait for public transport (e.g., secure taxi ranks). They further identify the need for more public telephones, safe pedestrian walkways and safer design guidelines of walkways as things that would improve their sense of safety.

The issue of wanting more police on the street to improve safety and decrease crime is a central theme in the literature. Winkel (1986), Hale (1996) and others have found that police help to reduce the public's fear, as police are viewed as people who can offer assistance and intervention to the public. It is interesting that participants identified the need for more women police officers as their second choice of things that improve safety. This finding is not duplicated elsewhere in the literature and may be accounted for by the fact that the current sample was made up entirely of women. It can be seen below that women are concerned about personal crimes like assault and rape. It is possible that women are better able to identify with women police officers and therefore these officers increase safety amongst this demographic. Further research into this is required to be able to expand on the findings.

It should further be noted that 1.7% of women rated 'other' as their highest concern. All of these women wrote similar statements that related to the need for Aboriginal people to be removed from the Northbridge area. This finding is consistent with other results for this question where other women in the sample may have expressed similar sentiments by rating 'cultural programs' as their first choice. It is an interesting and highly controversial finding that requires further consideration in future research.

General feelings about crime and safety

The final research question explored in this study was to ask women how they generally feel about crime and safety in the city. The findings here are interesting, although typical, as they show that most women surveyed think the area under study is a dangerous place at night, however, older women are more concerned than younger women at night and during the day. As discussed in the literature review these findings on age are not unexpected. Respondents further claim they worry a great deal about the safety of their loved ones from crime and criminals in Northbridge, with those in the 44-60 age range concerned the most. Most women in the sample thought that crime rates had risen over the last five years. It is interesting that women in the 44-60 age range are the most concerned about their loved ones. This may be attributed to the fact that people in this age group have children aged 18 or over who frequent the area for recreational purposes.

Women were concerned about becoming the victim of a crime in Northbridge with older women (55-60) the most concerned. Assault was the crime women are the most concerned about. Women reported feeling afraid of harassment, indecent assault and rape and were less concerned about theft, damage to property and stalking. The findings show younger women are more concerned about assault, stalking, rape, and indecent assault and older women are concerned about theft, harassment, verbal abuse and damage to property. These results may be accounted for by the fact that older people have property and assets that make them the more likely target for property offences, compared to younger people who have the commodity of youth and beauty making them the likely targets of personal or sexual crimes. More research would need to be done before the reasons for these attitudes could be ascertained. The biggest difference recorded across age was for the offence of rape with younger women more concerned than older women, with the mean going up incrementally with age. These findings are interesting and in some cases are supported by the literature.

These findings support earlier research by James and Embrey (2001) in Australia, who found 70% of women in their sample feared attack after dark. They further found that people feel safer during the day than at night, feel unsafe in city centres and that older people feel less safe than younger people. Research by Sarno, Hough and Bulos (1999) found respondents are afraid of violent attack, including attacks of a sexual nature, mugging, and are less concerned about theft. Research by Warr (1985) found younger women are more concerned about rape than older women. Specifically he found women in the 19-35 age group feared rape over any other offence (including murder). The current research supports this finding, showing that although a greater number of women overall rated assault as the offence they are the most concerned about (17.6% rated this as their highest concern and means show that this is the most feared offence), many women in the 18-34 age range rated rape as their highest concern (34.8% of women rated this as their highest concern). Ferraro's (1996) findings provide further support for the high fear of rape amongst women.

This issue (fear of personal crimes) requires consideration in relation to the findings of research question five presented above (What else could be done to increase women's feelings of security and their actual safety in Northbridge?). Question sixteen

on the questionnaire (answered research question five) showed that women rated the need for more police officers and more women police officers as the things that would increase their safety the most and further rated CCTV as their fifteenth choice of things that would improve safety. You can see from the findings above that women are more concerned about personal crimes (assault, rape, indecent assault and harassment) than they are about property crimes (theft and damage to property). Although overwhelmingly the findings show that women are supportive of the purposes and effectiveness of CCTV, they do not feel there is a need for more CCTV, as their concerns relate to personal crimes where police presence is seen to be more effective at increasing women's safety and decreasing crime (Winkel, 1986). It is interesting that women rate the need for more women police officers highly. This may reflect the fact that if personally attacked women would rather have the assistance and identify more in that situation with another female, or there may be other reasons for this finding. Further research would be required to ascertain under what conditions women would rather have the presence of a male or female police officer.

Research by Wilson and Sutton (2003) in Australia has found that the use of CCTV has meant there has been a reduction in the number of police on the street, freeing them up to perform other duties. This may have benefits but also consequences as the current findings show that police presence is important in decreasing women's fears (Winkel, 1986). Social constructionism claims that individuals construct knowledge about the world and this knowledge is sustained through social processes such as the community and gender. If women do in fact perceive themselves to be vulnerable to attack, police presence in areas covered by CCTV is vital if women are to deconstruct their current knowledge, or perceptions of fear of personal attack, and construct ways to understand the world based on reduced fear of victimisation. However, having more police on the street will not solve the problem and other initiatives to make city centres safer will also need to be employed, such as using police to educate women about safety issues.

The researcher asked women to indicate circumstances, and to identify areas on a map, where they feel unsafe. Walking over to the railway station, being alone, parking a vehicle, when there are few people around, after midnight, and calling a taxi, rated as the

top six responses of circumstances where women feel unsafe. The train station, parks, areas densely populated by indigenous peoples, or areas that are unfamiliar and not well lit, walkways and alleyways, car parks, and streets where there is a high concentration of bars and nightclubs, are areas where women feel particularly unsafe. Past research suggested that environmental factors are important in increasing community safety (Mugford, 1984). Specifically Bell (1998) shows that areas made up of a high concentration of bars and nightclubs tend to be areas of high crime concentration and high fear. Research looking into ways to improve safety shows that women are concerned about public transport and car parks, footbridges, alleyways and subways, areas made up of adult entertainment and areas with poor lighting (Bell, 1998; Nair, Ditton and Phillips, 1993; Hale, 1996; Box et al, 1998; City of Perth, 2002).

The findings of this study are consistent with past research and show that women are supportive of CCTV in public spaces. However, the findings also add to the current body of knowledge on CCTV and fear of crime. The findings show that women are not as supportive of statements relating to civil liberties and privacy issues, as reported in past research. The research also shows that although women are supportive of CCTV, and claim that it makes them feel safer, women still report feeling unsafe in the city. Women are concerned about their safety at night and fear personal crimes more than property crimes. Although it can be argued that closed circuit television increases women's feelings of safety and security, it only does this to a certain degree, and the main users of the area in question, that is, younger women, are undecided about many aspects of CCTV. In addition, it has been shown that women feel comfortable with the current level of CCTV and do not rate it highly as something they would like increases in. Women in the city would feel more secure with increased police presence and increased numbers of female police officers on the street.

Limitations

It is important to acknowledge that this research may have been limited in certain ways in both design and procedure. Methodological problems may have resulted from the questionnaire used, as it was not standardised against an existing questionnaire and may have been very demanding for participants, resulting in the unexpected skewed findings.

It took at least 20 minutes to complete the questionnaire which is a long time for those being stopped on the street and could have resulted in the lack of consistency in the responses to some questions. It may have produced more of a varied response if a mail out had been done so that participants did not feel under pressure to complete the questionnaire and did not have to complete it under noisy and crowded conditions. However, it is doubted that the response rate would have been as high under these circumstances. Other procedural problems included the varying ages of participants and the inability to control numbers in the age brackets so the sample was more evenly represented across age. Other factors are the time of testing (this was controlled as best as possible but there were times and days when no questionnaires were collected), and the time of year, as Northbridge is not as busy in the winter months and the sample may therefore not reflect accurately the people who use this area. Noise and crowded conditions in which to complete the questionnaire may also have influenced the findings.

There may have been extraneous variables interacting with the findings, as CCTV became widely publicised in the media with the introduction of a new transport scheme in Perth which is to have CCTV installed at all its stations. This may have raised levels of awareness in the community and influenced attitudes towards CCTV.

Future research and factor analysis

Flowing into the section below is the need for further research into CCTV, fear of crime and women's safety in the community. The results of factor analysis presented above in the results section show that the purposes, effectiveness and attitudes towards CCTV may best be presented in a condensed format in future questionnaires of public perceptions of CCTV, helping to reduce the length and time taken for participants to complete. Three factors emerged in relation to the purposes and were identified as: women's issues, police issues and juvenile issues. The groupings were less clear in relation to effectiveness but two components were identified. These were women's and juvenile issues, and police issues. In terms of attitudes to CCTV and purposes, four factors emerged and were identified as serious offences, pro CCTV issues, social sensitivity and police issues. For a further breakdown, refer to the result section. It may be useful for future research to centre on these factors in questionnaires, interviews or

focus groups and therefore help to further group the information to reduce the length of research instruments. If time permitted it would have been beneficial to conduct a focus group with participants to discuss the findings from the questionnaire. This would have allowed further exploration of the reasons behind the findings, particularly the age differences.

Future Research

This research provides a rationale for further study to be conducted in the area of CCTV, fear of crime, and women's safety. There is an obvious need for more independent evaluations relating to the effectiveness of CCTV systems at meeting the purposes identified in this research. Included in these evaluations is the need for further research looking into public perceptions and into gender differences in attitudes towards, CCTV and crime. Future research should explore what reservations communities have about CCTV and expand on the findings of what attitudes the community may have about CCTV, including political attitudes and beliefs. As well as members of the public, studies of defendants' attitudes towards CCTV and its effectiveness at reducing offending would provide valuable insights.

Women's levels of fear of crime and how CCTV and other crime reduction techniques interact with fear and how safety can be improved also require further investigation. Age differences in perceptions of CCTV and fear require further exploration in relation to the psychological reasons for beliefs about CCTV, as do cultural issues relating to CCTV and fear. An interesting area that requires further investigation is looking into what role the gender of police officers plays in reducing fear of crime amongst women and how this interacts with particular offences.

Collectively, the findings of this research have demonstrated that women feel CCTV is a useful tool to be used for crime prevention, crime reduction and for increasing personal and community safety. This provides evidence and support for the use of closed circuit television in city settings. However, women are undecided about privacy and civil liberty issues, and although they think CCTV is a good idea, they still feel unsafe in the city, showing that CCTV is not the answer to the crime problem, but rather one of a number of things that can be used by cities to address crime and safety issues. It is important to acknowledge that future research is needed to assist in the growth of

knowledge in this area, particularly in Australia where there is a dearth of research into closed circuit television.

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APPENDIX A



Qualitative Research Question Template

Topic: Women’s Perceptions of Safety: CCTV in an Inner City setting.

Demographics:

Time:

Location:

Interviewer’s name and position:

Interviewee’s name and position:

Summary of Study: The core aim of this study is to collect informative attitudes, knowledge and opinions towards CCTV and women’s safety.

Interview

Questions	Notes
<div>1. Do you visit the Northbridge area often?<div><div>- For work, study, recreation?</div><div>- Any other reason?</div></div></div> <div>2. Are you aware that you may be monitored by CCTV surveillance while in Northbridge? How did you become aware of the cameras?<div><div>- How many cameras do you believe are in the Northbridge area?</div><div>- Can you describe how they look?</div><div>- Do you know what type of cameras they are?</div><div>- What is your level of knowledge of CCTV operational procedures?</div></div></div> <div>3. What purposes do you think CCTV has? What, if any, behaviours do you think it prevents/deters?</div> <div>4. How effective do you think CCTV is at achieving the purposes you identified?</div>	

<ol style="list-style-type: none"> 5. Describe your attitudes towards CCTV in Northbridge. How do you personally feel about your behaviour being monitored? 6. Would you say that Northbridge is a dangerous place? If so why? 7. Do you feel safe in Northbridge alone at nighttime and during the day? If you do feel safe what contributes to this feeling of safety? If you do not feel safe, why do you think this is? Does CCTV contribute to these feelings? 8. What do you feel are the benefits and drawbacks of having CCTV in Northbridge? 9. How does CCTV affect the time you spend in Northbridge? 10. How do you think other women feel about CCTV in Northbridge? Do you think women are aware of the cameras and that they enhance their safety? 11. Are you concerned about women's safety issues in Northbridge? What concerns do you have? 12. What else do you think could be done in Northbridge to increase your feelings of safety and your actual safety? 13. Is there anything we have not discussed that you think is important in relation to the topic? 	
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Template adapted from Creswell (1998, p.127, Figure 7.5: Sample Interview protocol)

APPENDIX B



Information Sheet

This research investigates women's attitudes towards closed circuit television (CCTV) surveillance cameras and women's safety in Northbridge, and is part of a Master of Criminal Justice at Edith Cowan University. It will involve you taking part in an interview.

All interview questions relate to the purposes women attach to CCTV, the perceived effectiveness of CCTV, the level of awareness of CCTV, general attitudes towards CCTV and safety in Northbridge, the benefits and drawbacks associated with having CCTV in Northbridge and further ways to improve women's safety in Northbridge. Women's safety issues may be a difficult topic for some people to discuss, and you may choose to decline to participate in the research if you so desire. This research will have possible benefits for women in relation to raising awareness of their safety concerns.

The interviews will take approximately 45 minutes. You are free to take a break whenever you wish.

Any participant is free to withdraw from the research at any time before or during the interview. If you are willing to take part in this research, please sign the consent form to indicate your consent to do so.

Any questions concerning the project entitled CCTV: Women and Safety can be directed to Dr Irene Froyland of Justice Department on 6304 5415.

If you have any concerns about the project or would like to talk to an independent person, you may contact Dr Sybe Jongeling on [REDACTED]

Thank you

APPENDIX C



Consent Form

Women's Perceptions of Safety: CCTV in an Inner City Setting

Edith Cowan University

Master of Criminal Justice

Department of Business and Public Management

Name: Age:

Address:

Telephone No:

I,.....agree to participate in the research conducted by Kate Hancock of the Department of Business and Public Management, Edith Cowan University. I have been informed that the aim of the research is to investigate attitudes towards Closed Circuit Television Surveillance and women's safety issues in Northbridge. I understand that I will be taking part in an interview and agree that the procedures for doing this have been adequately explained to me. I understand that the interview will be audio recorded and this recording will be erased once the interview is transcribed. The researcher has informed me about confidentiality and I am aware that no identifying details will be passed on to anyone other than the researcher and her supervisor. I agree that the research data gathered for this study may be published provided I am not identifiable. My participation in this research is voluntary and I know that I am free to withdraw from the research at any time.

Participant: Date:

Researcher: Date:

APPENDIX D

QUESTIONNAIRE

Thank you for agreeing to complete this survey. The pink sheet explains that this is an anonymous survey. Therefore, we do not need any identifying information. By completing the questionnaire, you are consenting to take part in this research. As such, you should read the enclosed Disclosure Statement carefully as it explains the intention of this project.

QUESTION 1: Please provide some basic information about yourself.

1A: Which age bracket do you fit?	18-24	25-34	35-44	44-54	55-60
1B: Which suburb do you reside in? (Provide postcode)					
1C: Do you identify with any ethnic group? (please specify)					

QUESTION 2: Why do you visit the Northbridge area?

- Work/study
- Recreation
- Live nearby
- Often for recreation
- Very rarely visit
- Occasionally for pleasure

2A: Do you visit Northbridge more often during the day or at night?

- Night time
- Daytime

QUESTION 3: Are you aware that you may be monitored by Closed Circuit Television (CCTV) surveillance while in Northbridge?

Very aware 1 2 3 4 5 Very unaware

QUESTION 4: How did you become aware of CCTV surveillance cameras in Northbridge?

4A: Media	1
4B: I have seen them	2
4C: They are obvious	3
4D: Friends/family	4
4E: Other (Specify)	5 _____

QUESTION 5: The following items seek your opinions on what you think are the **PURPOSES** for installing CCTV surveillance in Northbridge. For each statement, please circle the response that most closely reflects your feelings about the statement.

Statement	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
The PURPOSE of CCTV is to:					
5A: help make Northbridge safer	1	2	3	4	5
5B: prevent crime and deter criminal behaviour	1	2	3	4	5
5C: help the police respond to incidents	1	2	3	4	5
5D: help business prevent theft and damage	1	2	3	4	5
5E: manage drunk and disorderly behaviour	1	2	3	4	5
5F: stop drug use and drug trafficking	1	2	3	4	5
5G: control young people and juvenile nuisance	1	2	3	4	5
5H: catch criminals	1	2	3	4	5
5I: gather evidence	1	2	3	4	5
5J: make women feel safer	1	2	3	4	5
5K: make men feel safer	1	2	3	4	5
5L: reduce sexual assault	1	2	3	4	5
5M: reduce stalking/harassment	1	2	3	4	5
5N: reduce suicide	1	2	3	4	5
5O: enhance the management and control of Northbridge	1	2	3	4	5
5P: prevent/reduce murder	1	2	3	4	5
5Q: prevent/reduce prostitution	1	2	3	4	5

QUESTION 6: The following items seek your opinions on how **EFFECTIVE** you think the installation of CCTV surveillance in Northbridge is in achieving the stated purposes. For each statement, please circle the response that most clearly reflects your feelings about the statement.

Statement	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
I think the installation of CCTV in Northbridge is EFFECTIVE in:					
6A: helping make Northbridge safer	1	2	3	4	5
6B: preventing crime and deterring criminal behaviour	1	2	3	4	5
6C: helping the police respond to incidents	1	2	3	4	5
6D: helping business prevent theft and damage	1	2	3	4	5
6E: managing drunk and disorderly behaviour	1	2	3	4	5
6F: stopping drug use and drug trafficking	1	2	3	4	5
6G: controlling young people and juvenile nuisance	1	2	3	4	5
6H: catching criminals	1	2	3	4	5
6I: gathering evidence	1	2	3	4	5
6J: making women feel safer	1	2	3	4	5
6K: making men feel safer	1	2	3	4	5
6L: reducing sexual assault	1	2	3	4	5
6M: reducing stalking/harassment	1	2	3	4	5
6N: reducing suicide	1	2	3	4	5
6O: enhancing the management and control of Northbridge	1	2	3	4	5
6P: preventing/reducing murder	1	2	3	4	5
6Q: preventing/reducing prostitution	1	2	3	4	5

QUESTION 7: Please answer the questions below, asking about your level of **AWARENESS** of the CCTV system in Northbridge.

7A: How many cameras do you believe approximately are in the Northbridge area?	10 30 60 80 100 120 150
7B: Do you know what they look like?	Definitely 1 2 3 4 5 Definitely not
7C: Do you know much about how CCTV works? (Please describe)	Lots 1 2 3 4 5 Very little Please explain: _____ _____
7D: How many years (approximately) do you think the CCTV system has been operational in Perth?	1 3 5 7 9 10 12
7E: Do you think the City of Perth should do more to make the public aware of the CCTV system?	Definitely 1 2 3 4 5 Definitely not
7F: Do you think media portrayals of crime in Northbridge are accurate?	Definitely 1 2 3 4 5 Definitely not
7G: Do you think crime rates have risen in Northbridge over the last five years?	Definitely 1 2 3 4 5 Definitely not

QUESTION 8: The following statements ask you to describe your ***FEELINGS*** about CCTV surveillance in Northbridge. For each statement, please circle the response that most reflects your feelings about the statement.

Statement	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
8A: It is a good idea	1	2	3	4	5
8B: It will make Northbridge safer	1	2	3	4	5
8C: It will help the police	1	2	3	4	5
8D: Women do not mind being observed by cameras	1	2	3	4	5
8E: CCTV makes women feel safer	1	2	3	4	5
8F: CCTV might be a threat to civil liberties	1	2	3	4	5
8G: CCTV makes no difference & is a waste of money	1	2	3	4	5
8H: CCTV unfairly targets certain groups of people	1	2	3	4	5
8I: I'd prefer to see more police officers on the street	1	2	3	4	5
8J: I enjoy my time in Northbridge more due to the presence of CCTV	1	2	3	4	5
8K: CCTV enhances community safety	1	2	3	4	5
8L: Without CCTVs, there would be more crime against women in Northbridge	1	2	3	4	5
8M: I do not trust the authorities to use the system fairly	1	2	3	4	5
8N: CCTV cameras invade peoples privacy	1	2	3	4	5
8O: CCTV cameras do not reduce the victimisation of women	1	2	3	4	5
8P: CCTV contributes to the "male gaze" of men watching women	1	2	3	4	5

Now I'd like to get your opinion about crime and safety in general

QUESTION 9: Do you think Northbridge is a dangerous place during the day?

Very dangerous 1 2 3 4 5 Not dangerous

9A: Do you think Northbridge is a dangerous place at night?

Very Dangerous 1 2 3 4 5 Not Dangerous

QUESTION 10: Are you personally concerned about becoming a victim of crime in Northbridge?

Yes definitely 1 2 3 4 5 Definitely not

10A: What types of crime are you concerned about in Northbridge? Please number the boxes below from 1 to 8, with 1 being the crime you are most concerned about and 8 being the crime you are least concerned about.

- | | |
|----------|--------------------|
| Assault | Indecent assault |
| Stalking | Harassment |
| Rape | Verbal abuse |
| Theft | Damage to property |

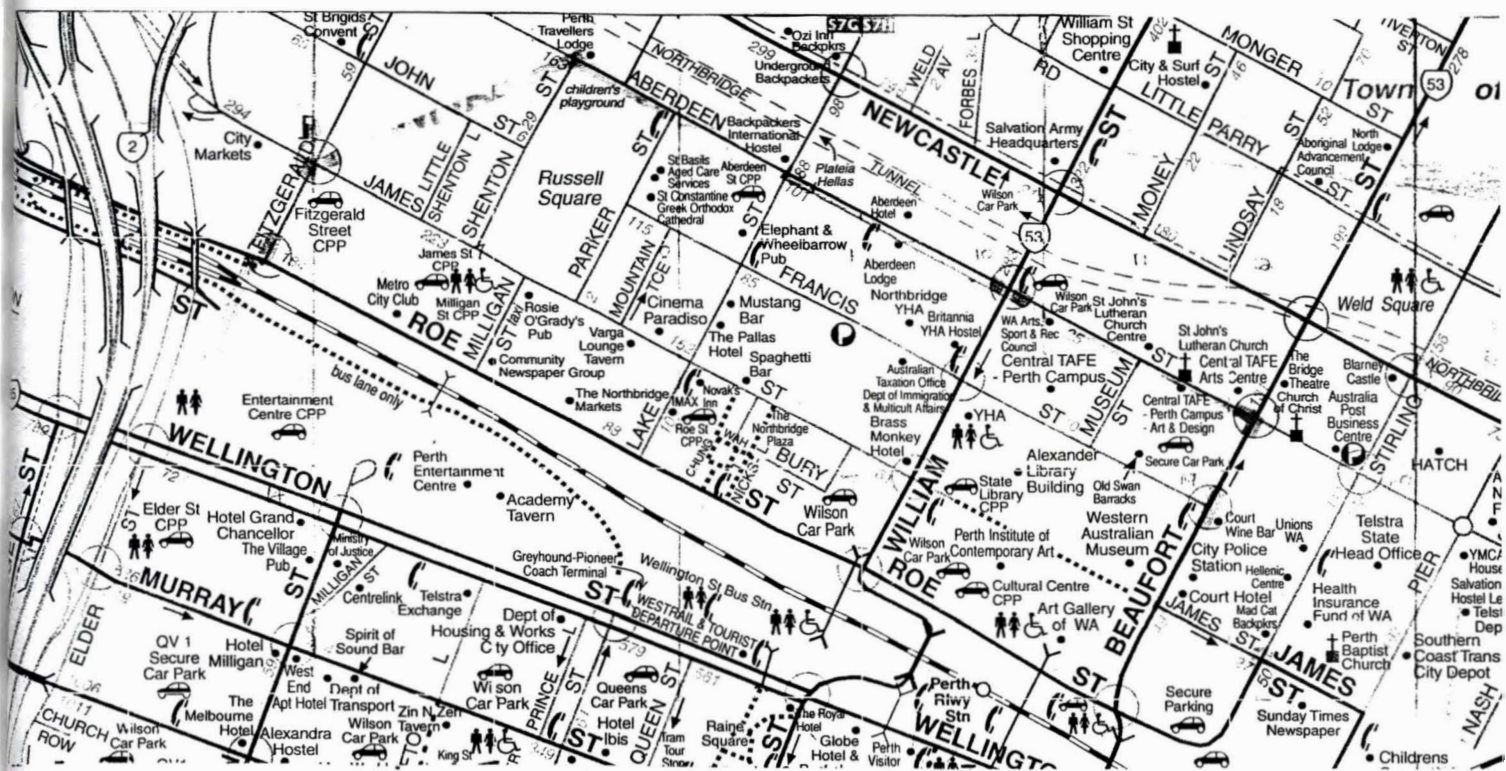
QUESTION 11: I worry a great deal about the safety of my loved ones from crime and criminals in Northbridge?

Yes definitely 1 2 3 4 5 Definitely not

QUESTION 12: The following items seek your opinions on how **SAFE** you feel in Northbridge, at nighttime, under different circumstances. For each statement, please circle the response that most clearly reflects your feelings about the statement.

Statement	Very Unsafe	Unsafe	Undecided	Safe	Very Safe
How SAFE do you feel or would you feel being in Northbridge at night when:					
12A: you are alone?	1	2	3	4	5
12B: with female friends?	1	2	3	4	5
12C: with male friends?	1	2	3	4	5
12D: in a large crowd?	1	2	3	4	5
12E: after midnight?	1	2	3	4	5
12F: parking your car?	1	2	3	4	5
12G: calling a taxi?	1	2	3	4	5
12H: in a restaurant?	1	2	3	4	5
12I: in a nightclub?	1	2	3	4	5
12J: security staff are present?	1	2	3	4	5
12K: walking over to the railway station?	1	2	3	4	5
12L: going to work or study?	1	2	3	4	5
12M: there are few people around?	1	2	3	4	5
12N: Do you think that people in this neighbourhood are generally safe?	1	2	3	4	5

QUESTION 13: On the map below can you please indicate the areas you would be afraid to go at night? (By circling the areas).



QUESTION 14: Now that you are more aware of the presence of CCTV cameras, do you think you will feel more secure in Northbridge?

14A: (Night time)

Yes definitely 1 '2 3 4 5 Definitely not

14B: (Daytime)

Yes definitely 1 2 3 4 5 Definitely not

QUESTION 15: Can you please list two pro’s and two con’s associated with CCTV in Northbridge.

	24A: Pro’s	24B: Con’s
One		
Two		

QUESTION 16: To increase women’s safety in Northbridge which of the following would be most effective? Indicate your most effective choice by placing the numeral 1 in the box, the second most effective by placing the numeral 2 in the box, and so on. You can stop any time. There is no need to rank all of the items, but please rank at least seven.

- Provide juveniles with other activities

More security guards
- More women police officers

More public telephones
- More CCTV cameras

More taxi ranks/taxis
- Shuttles to and from public transport

Better street lighting
- Information about crime risks and services

More security poles
- Culturally specific programs

Safety Education
- Safer design guidelines for development

Signage on toilet doors
- After dark pedestrian walk ways

More police officers
- Encourage more people to use the area

Early intervention programs

Other (please specify)

THANK YOU FOR YOUR PARTICIPATION
IT IS GREATLY APPRECIATED

APPENDIX E



Disclosure Statement

Dear respondent,

My name is Kate Hancock I am currently enrolled as a student in the Department of Business and Public Management at Edith Cowan University, Perth, Western Australia. Currently, I am doing my thesis as partial requirement in order to achieve my Master of Criminal Justice degree.

This questionnaire is related to my thesis topic, which investigates women's safety attitudes and closed circuit television. By answering the questions, you will provide valuable information on your attitudes towards women's safety in Northbridge. This may provide information for local council, academics and various women's groups in Australia.

In the questionnaire below, there are several items related to different aspects of the topic and I seek your help in answering the questions. I expect that it will only take about 10 minutes of your time.

There is no compulsion on you to participate in this research study. You may refuse to participate, or withdraw at any stage. All responses will be coded, and to preserve anonymity and confidentiality of records, the original questionnaires will be shredded.

If you have any questions about the research, I will be pleased to answer these. Any other questions concerning the project or the research process can be directed to Dr Irene Froyland of Justice Department on 6304 5415.

.....
(Signature of the investigator)

APPENDIX F



Letter for Participants

Dear respondent,

Thank you for participating in the research project titled CCTV: Women and Safety.

As this project investigates women's attitudes towards closed circuit television and women's safety issues in Northbridge, it is reasonable that these topics may be difficult for some women to discuss.

Below I have included a list of free public services that you are able to access if you feel you have personal matters you would like to discuss further.

Thank you

Kate Hancock

Crisis Care – 9223 1111

Mission Australia Help line – 1300 886 999

Sexual Assault Resource Centre – 1800 199 888

Women's Information Service – 9264 1900