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### *Chlamydia and Young People: Knowledge, Behaviour and Risk Taking:Public Health Perspectives.*

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**Chlamydia and Young People: Knowledge, Behaviour and Risk Taking:  
Public Health Perspectives.**

**Author: Lynn Wilson**

**Title: Chlamydia and Young People: Knowledge, Behaviour and Risk Taking: Public Health Perspectives.**

## **Abstract**

### **Background**

Chlamydia screening is an international strategy used to reduce rates of infection in a target population. This thesis set out to explore the behaviour of young people against the principles of this government strategy for infection control and self-empowerment. The work was set in County Durham and Darlington where I led a service for improved awareness and screening for Chlamydia for young people aged 15 – 24 years.

### **Aims**

This research was based on interviews with Chlamydia screening service users in order to understand the factors that influenced their risk taking behaviours and to generate theory for public health practice. An analysis of outcomes from a large sample of over 20,000 subjects and observations of young people in settings where Chlamydia testing and advice was available gave context and background to this study.

### **Findings**

Chlamydia screening was used as a strategy to offset risk taking that enabled young people to continue behaviours that they valued. This finding is a new and unexpected contribution to Chlamydia screening literature, and also supports the developing theory of edgework. Knowledge and awareness of Chlamydia did not change as a result of screening activities, and this did not have a major influence on preventative behaviour. The national messages that one in 10 young people are infected, and that infection is easily detected and managed, was interpreted by some that nine in 10 young people were not infected, and that this was not a significant health threat. Incentives were found to significantly increase screening uptake although this did not lead to a change in risk taking. There was an increased likelihood to have sex with the perception of knowing a partner, although this was not necessarily based upon factual information. Most participants demonstrated lethal patterns of alcohol consumption that commonly led to sexual encounters and all those who stated that they were aware of safe drinking limits demonstrated lethal patterns of alcohol consumption. All participants with a positive test result had a negative result within the previous year suggesting no change in risk taking following screening, and although all participants said that they would modify their behaviour in the future, when they were probed all stated that this would not happen giving reasons such failure to moderate alcohol use.

### **Conclusion**

These findings led me to conclude that risk taking in relation to health and potential disease is a normal process in the development of young people. Young people value risk taking activities for promoting self-identity and supporting emotional and social well-being. Public health interventions need to consider the developmental needs of young people using an asset based approach in order to provide interventions that address the causes of risk taking behaviours.

**Chlamydia and Young People: Knowledge, Behaviour and Risk Taking:  
Public Health Perspectives.**

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**2012**

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## List of abbreviations

AIDS	Acquired immune deficiency syndrome
CSO	Central screening office
EIA	Enzyme immune acid
FI	Female interviewee
GUM	Genito-urinary medicine
HIV	Human immunodeficiency virus
MI	Male interviewee
NCSP	National Chlamydia Screening Programme
NICE	National Institute for Clinical Excellence
OV	Observational visit
PSHE	Personal sex health education
STI	Sexually transmitted infection

**Statement of copyright**

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## ***Dedication***

For Stephen, Danny and Jack who are always there for me, for my mother who has always believed in me and for Bobby and Isabel – you said I could do it.

## Chapter One: Introduction, my need for understanding

*"If we knew what we were doing it wouldn't be research"*

*(Albert Einstein, 1879-1955)*

I am a nurse and a health visitor by background. I took up my post in sexual health in 1992, firstly as a Nursing Sister and later as a Health Advisor. The sexual health service (genito-urinary medicine - GUM) - the first in County Durham, had not yet commenced delivery. It was the development of the service and staff as well as the challenge of leading, marketing and delivering a completely new service that was attractive to me. Having previously worked in surgery and urology for six years this provided me with both a personal and professional development.

The significant consequences of Chlamydia infection became apparent to me very early in my career. I can recall the devastation to a young professional couple who in the planning of their second child experienced a series of miscarriages over a number of years. At that time there was increasing evidence that *Chlamydia trachomatis* infection may result in a number of adverse pregnancy outcomes, including early and late abortion (Mårdh, 2002). Although a range of medical investigations were carried out the couple were never screened for Chlamydia. Finally they were referred for tubal ligation in order to prevent any future miscarriages. They presented to us for a routine check having heard about Chlamydia - they tested positive. This situation appeared so tragic and yet avoidable to me.

Between 1986 and 1992 I was a senior surgical and urology nurse. I recall the management of males with epididymo-orchitis, now commonly known to be associated with Chlamydia. This usually consisted of five days bed rest with antibiotics - cephalexin and metronidazole. I had never heard of Chlamydia let alone considered the detection, treatment or partner consequences. This was not an exception and upon reflection this was a condition that should have offered diagnostic testing, treatment and partner notification for Chlamydia.

I recognised the need to raise the public and professional awareness of Chlamydia whilst working as a student Health Visitor between 1997 and 1999. I recall challenging the lack of consideration of sexual health issues. Swabbing the sticky eyes of babies for Chlamydia was at first discouraged. However this softened when the identification of a

positive result led to the successful treatment of baby and parents without any psychological damage to either patient or GP! As part of my final qualification I discussed the role of the health visitor which concentrated on the 0 - 5 year old children and their parents who were obviously sexually reproductive. My dissertation was entitled: The role of the health visitor in the management of *Chlamydia trachomatis* infection. This led to the award of a BSc (hons) Public Health Nursing.

My passion for working in sexual health continued and in 2004 I completed an MSc in Health Promotion with my dissertation: Genital Chlamydia a dilemma for primary care. This involved the completion of an action research project which resulted in a care pathway for community care, enabling the treatment and management of Chlamydia infections by contraceptive staff.

I was offered a post in Easington Primary Care Trust to develop the County Durham and Darlington Chlamydia screening service. This resonated with my belief that Chlamydia was an important health issue and that such a programme would enable young people to take control of their sexual health. However, this belief was about to be challenged.

By 2004 the Royal College of Obstetricians and Gynaecologists stated that it was *good practice* to screen women for Chlamydia who were to undergo an abortion in order to prevent ascending complicated infection. By 2007 the National Institute for Clinical Excellence (NICE) produced professional guidance for those responsible for sexual health including general practice, GUM, contraception services and school health (National Institute for Clinical Excellence, 2007a). Even in 2008 NICE stated that further research was required to assess the effectiveness, practicality and acceptability of Chlamydia screening in the antenatal setting (National Institute for Clinical Excellence, 2008).

As the local programme was rolled out I was asked to develop this for the North East region, which I did. However, as service delivery became established there did not appear to be a reduction in the rates of infection. Neither did the quick and easy methods of detection and treatment that made the programme acceptable to the public, appear to have any influence on the risk taking behaviours of the individuals. This provoked my desire to understand the underlying behaviours of young people who used the local service and motivated me to undertake this research.

## **Chapter Two: Background and patterns of Chlamydia screening in County Durham and Darlington**

### ***Introduction***

This chapter outlines the background and the development of Chlamydia screening in County Durham and Darlington where my research commenced. It is designed to provide an overview of the development in thinking and in services prior to my thesis and to present data relating to the uptake and prevalence of infection in the target population. The following chapter will present a literature review of Chlamydia.

Chlamydia trachomatis is the commonest sexually transmitted infection (STI) in the United Kingdom. Around 10% of sexually active under 25 year olds are infected, but the majority will have no symptoms (National Chlamydia Screening Programme, 2004). According to the Office of National Statistics mid-year population estimate (2010) there were 36,473 young people aged between 15 and 24 years in County Durham and 6,054 in Darlington. Between 2004 and 2009 over 20,000 Chlamydia tests were taken from this geographic population of young people which will be discussed in this chapter.

In 2002 the government introduced a national Chlamydia screening programme for under 25 year olds. This was enabled by technological advances which use new methods for self-taken specimen collection (urine sample or self-taken swabs). The programme aims to promote public health by early detection and treatment of infection and the prevention of onward transmission. It has evolved from the American initiative, which was established in the mid 1980s, and was quickly followed by Sweden and Denmark. In 2005 the Health Protection Agency estimated the health consequences of infection including infertility, pelvic inflammation and miscarriage of pregnancy cost the UK government approximately £200 million annually (McNulty, 2005). In 2007, the USA calculated the annual cost of Chlamydia complications in women to be more than \$2 billion, compared to national screening for Chlamydia costing \$175 million -- a savings of \$12 for every dollar spent on prevention (Centre for Disease Control, 2007). These calculations do not include indirect consequences of Chlamydia such as increased risk of HIV infection.

### ***The local programme in outline***

The Chlamydia screening programme is based upon a detect and control strategy. This is offered to 15-24 year olds and locally is a nurse led service. Due to funding arrangements, the service was developed in the community away from the acute trust and continues to be commissioned by the Primary Care Trusts. This model of service delivery, along with technological advances in specimen testing has allowed non-invasive screening methods such as self-taken vaginal swabs and urine samples. This is offered to clients in non-clinical settings such as colleges, or even through the post. The local nurse-led programme has created a shift in the balance of this power by delivering screening in non-traditional settings such as colleges, often by non-clinical staff such as youth workers.

There is a central screening office (CSO) in the East of the County where administrators and health advising staff are based. Screening packs containing specimen collection kits, test request forms and postal materials are provided to a range of clinical and non-clinical test initiators. Test initiators forward samples to the appointed laboratory using existing specimen transport arrangements. The CSO staff also deliver screening events in a range of settings such as colleges. Incentives such as payments are offered to organised screeners such as GPs or university colleges. Other incentives such as underwear are used to promote screening by the CSO staff. All programme screening information is sent to the CSO via the laboratory where individual data is recorded, positive results are followed up and treatment and partner notification is offered. The CSO has a statutory responsibility to report data to the national programme.

Since the inception of the UK national programme in 2002 and the local programme in 2004 rates of sexually transmitted infection continued to rise annually and rates of teenage pregnancy were higher in the UK than all of Europe. The results of a local semi-structured questionnaire (Easington Primary Care Trust, 2006) completed by 800 young people who had been screened for Chlamydia found that young people found Chlamydia screening acceptable, wanted this to be offered regularly, want screening for other STIs included and was a health intervention that they would not have otherwise accessed. This led me to question whether the programme was effective and ask why this was not reducing rates of infection. The answer to these questions may also explain why countries such as Denmark, Sweden and the United States who had long-

established Chlamydia screening programmes, continued to have an increased prevalence of all sexually transmitted infections (World Health Organisation, 2006).

### ***Description of local activity***

County Durham and Darlington have a population of around 640,000 (Office For National Statistics, 2010) including 42,527 15 - 24 year olds. Prior to the screening programme diagnostic testing was available through GUM and some general practices and contraceptive clinics.

A total of 20,537 Chlamydia screening specimens were processed by the County Durham and Darlington programme between 24 November 2004 and 22 July 2009. The statistical analysis has been extracted from a report by Ahmad (2010). This showed a year on year increase in the number of tests undertaken between 2004 and 2009 as the Chlamydia screening programme became established. Since its inception the County Durham and Darlington Chlamydia screening programme has had a significant male attendance, with around 40% of all screening from male clients. This was nationally recognised as a programme of good practice (Health Protection Agency, 2006, Wilson, 2006). The uptake of male screening rates was attributed to the degree of non-clinical screening venues such as college events and postal screening packs.

Half of all tests were undertaken by those aged 15-18 (49.9%). There were 2,050 female and 1,006 male 17 year olds that had Chlamydia tests, making this age the most frequently tested for both sexes. After a peak age of 17, there was a gradual decline in uptake for testing. A total of 2,048 under 15s were also tested in this time period, with the youngest being 13 years of age of which there were 103 females and 23 males. There was also a significant number of over 24 year olds providing Chlamydia samples, the oldest being 68. In the 15 - 24 age groups, a total of 16,606 tests were undertaken, comprising 80.9% of the total samples.

The majority of those who provided their ethnicity stated they were white (98.7%). This is proportionate to the general population where 98.6% (County Durham) and 97.9% (Darlington) are white. Of the remaining people taking the tests, various black ethnicities made up 0.5%, 0.2% were Asian, 0.05% were Chinese and the remaining 0.55% were mixed and other ethnic groups.

The majority of individuals submitted samples for screening purposes (97.7%) and had no symptoms at the time of testing. Although asymptomatic screening is common due to the nature of the disease a local study with university students found that most would not have been screened if it had not been offered – usually at college and university events (Easington Primary Care Trust, 2006). This is similar to a Danish study of young men, where almost all service users with a positive test were asymptomatic (Andersen et al., 2005).

Chlamydia screening was undertaken in various types of venues. A large proportion of tests were undertaken by students in higher education at the universities and colleges in the region, accounting for 22.7% of the total tested. This is significantly higher than the national average of 11.5% but comparable to the North East region (22%) (World Health Organisation, 2006). The proportion of screening in educational settings may be attributed to the large university and college populations in County Durham and Darlington.

In most cases (98.85%) the method of screening used was urine samples. This may support the findings of the national screening programme pilot studies which found the non-invasive screening methods to be acceptable to the service users (Department of Health, 2000a, Department of Health, 2000b).

Most samples were negative for Chlamydia, with 17,252 (84%) such results. There was an overall Chlamydia positivity over the five year period of 10.7%. This is significantly higher than the national average of 7.3% (Health Protection Agency, 2010). County Durham and Darlington have some of the most deprived wards in the country. Deprivation is a significant local issue with 31% of Super Output Areas (SOA in Durham) and 25% in Darlington amongst the fifth most deprived in England (NHS County Durham and Darlington, 2009). Furthermore, rates of teenage pregnancies were significantly higher in County Durham (49.9 / 1,000) and Darlington (55.2 / 1,000) compared with the England rate (41.7 / 1,000) (Department for Education, 2011). The local prevalence rate may suggest a link between poverty and reduced opportunities to poorer health and health choices or may reflect a north-east culture.

Positive results were greatest amongst those aged 17 and 18 with a prevalence of 12.9%, followed by those aged 21 and 22, with 11.6% positive for Chlamydia. The

lowest rates of the infection were found in the over 24s and under 15s, which is why the screening programme parameters were aimed at this specific age range.

The positivity rate varied from 4.1% in 2004 (quarter four data only, n=469) to 12.9% in 2006 (n=2,903). Thereafter the positivity rate reduced annually to 10.8% in 2008 (n=5,372). These figures were interpreted with caution as the national target created an increased pressure to achieve high volume screening, which was determined by the number of tests performed against a given population. Repeat testing of large accessible populations such as college and university students will create a dilution effect to positivity rates.

Males were slightly more likely to have had a partner in the previous three months with 38.6% answering yes to this question, compared with 35.6% of females. The positivity rate was higher in those reporting a new partner in the previous three months (12.7%) compared to those in a longer term relationship (9.4%). The positivity rate was 13.6% in those with several partners and 7.8% in those with less than two partners in the past 12 months. Likewise the prevalence of infection was higher in those who had not used a condom during the last sexual episode. 27.8% of respondents stated that they had used protection. The rate of prevalence was higher in the sub-set that did not use protection (12.0%) compared to those that did (9.5%). Those undertaking testing were asked if they had a previous Chlamydia screen done in the past 12 months, of which 3,345 (17.3%) stated that they had. Most (90.2% women and 86.2% men) reported exclusive heterosexual activity in the previous 12 months. These heterosexual groups had the highest prevalence of infection (13.2%) compared to all other groups. Those that reported no sexual activity in the previous three months had the lowest positivity rate. The data appears to support the link between those who had fewer partners and used condoms to lower rates of infection.

Despite the national target (to screen 25% of 15 - 24 year olds 2009 - 2010) quarter 3 data showed only a 13.5% screening uptake nationally. Predictive modelling showed that a 10 year Chlamydia screening programme could have a wide ranging reduction in prevalence of infection (4 - 85%) (Kretzschmar et al., 2009). This is dependent upon a range of variables, including female only screening versus male and female screening, use of incidence and prevalence data, and assumptions regarding treatment seeking and sexual behaviour. Therefore, this estimate must be considered unreliable.

This information supported my suspicions that despite good access to the screening service for both males and females this did not appear to have any effect on behaviour with most individuals describing poor condom use and a large number accessing multiple screening. I undertook a further analysis of the local 2010-11 data. This showed that 32% of young people screened had more than one test which accounted for more than half (57%) of all screening tests (Table 1). Some young people had up to 14 tests in that year, suggesting that there is no change in health seeking behaviour other than screening to offset risk. This may also be explained by the need of the local programme to achieve high volume screening and targeting of large, accessible populations such as students.

**Table 1: Screening frequency by gender, County Durham and Darlington 2010-2011**

Number of tests per person	Female		Male		Overall			
	People	Tests	People	Tests	People	%	Tests	%
1	5657	5657	5480	5480	11137	67.82%	11137	43.20%
2	1553	3106	1498	2996	3051	18.58%	6102	23.67%
3	547	1641	642	1926	1189	7.24%	3567	13.84%
4	263	1052	332	1328	595	3.62%	2380	9.23%
5	102	510	134	670	236	1.44%	1180	4.58%
6	48	288	89	534	137	0.83%	822	3.19%
7	11	77	31	217	42	0.26%	294	1.14%
8	7	56	13	104	20	0.12%	160	0.62%
9	3	27	7	63	10	0.06%	90	0.35%
10	0	0	1	10	1	0.01%	10	0.04%
11	0	0	1	11	1	0.01%	11	0.04%
14	1	14	1	14	2	0.01%	28	0.11%

This prompted me to attempt to understand risk taking behaviour from the perspective of the individual. In 2004 the abstract for my MSc began:

*“If we are to foster a culture of positive sexual health everyone must have access to the information they need to empower themselves to make informed decisions in order to prevent sexually transmitted infections.”*

I now consider this statement to be naive. The concept of empowerment may consider that to be empowered you must first of all have been disempowered. However this does not take into account the fact that individuals considered to be empowered may choose not to adopt what is considered to be health seeking behaviour.

### ***Screening by venue***

Prior to the commencement of interviews with service users I undertook a number of observational visits to venues where Chlamydia screening is offered to the public. I intended this to explain the context in which screening was offered and accepted or refused. My observations were conducted at a community contraception clinic, a contraception and sexual health session in general practice, a pop concert, an outreach screening event in a town centre and a young person clinic attached to a secondary school. The range of venues were chosen in order to understand the process of offering and accepting screening, as well as the type and effect of health promoting interventions.

A number of core behaviours were identified. Service users generally did not read marketing material such as leaflets and posters that were on display either whilst waiting or that were given to them. Young people tended to screen in peer groups with friends. Males were observed to openly discuss screening at events whereas females would discreetly hand over tests when in public places. Chlamydia screening was offered as a health benefit in isolation and did not address other sexual health issues such as contraception and pregnancy. Screening did not generally require any depth of engagement with young people and would not identify issues such as exploitation or abuse which should be part of the client assessment for competence (see chapter five regarding Fraser guidelines). Clients tended to self-diagnose symptoms and rationalise potential risk of infection, for example, symptoms of genital irritation were considered to be caused by a fungal infection. Incentivisation of screening with free gifts, such as pants and key rings, was observed to be attractive to the young people, who would stop to look at the gifts and even ask about new ones such as seasonal pants.

### ***Conclusion***

Having set up what is considered to be a successful screening programme I found myself in a position where I questioned the value of the programme based upon the

health outcomes that it achieved. Despite the huge efforts and resources invested in the programme rates of infection (as well as unplanned pregnancies) continued to rise. I had been proud to have completed a BSc and MSc both centred on the control of Chlamydia infection. Upon reflection these approaches were clinically based upon cause and effect – for example, the development of a care pathway will result in treatment of infection. The studies did not attempt to understand the factors that motivate individual behaviour and neither awards had explored the contributing factors to infection from the perspective of the young people.

The value of the screening programme to young people and the factors that influence health and behaviour will be discussed as the data emerge. As this study aimed to generate theory regarding the risk taking behaviours of young people who access Chlamydia screening, an interpretative approach was adopted to explain the factors that influence behaviour.

## **Chapter Three: Literature review**

*“It is the knowledge of the way in which the disease is propagated which will cause them to disappear”*

*(John Snow, 1813-1858)*

### ***Introduction***

Hippocratic writing on the treatment of diseases advises “*make a habit of two things – to help, or at least, to do no harm*” (Hippocrates, 450-380BC). Just as Hippocrates is considered to be the father of medicine, John Snow is considered to be the father of epidemiology with his use of scientific thinking, systematic data collection and robust analysis leading to the development of good science (Physics Education, 2010). This chapter aims to review the literature concerned with the epidemiology and natural history of Chlamydia trachomatis that underpins the national screening strategy. The local implementation of the national programme within the context of screening criteria will be explained and public health perspective on Chlamydia screening will be discussed.

Chapter four will discuss a range of psychological perspectives such as personality, cognition and developmental theory. As this research developed and data emerged the literature search expanded in order to explain data such as risk homeostasis and alcohol myopia.

### ***Search strategy***

I used the NHS Health Information Library and Durham University online resources. I developed search strategies based upon topics using the search engines AMED, BNI, EMBASE, HMIC, MEDLINE, PsycINFO, CINAHL, and Health Business Elite.

As this study progressed and themes emerged the data extraction tool supported the retrieval and coding of data, which I used to generate cross-study themes such as the evolution of human mate choice and how facial resemblance affects behaviour. This research was used to inform the analysis of my research data as it emerged. Combined searches were used such as knowing partners and concept of knowing. This refined

and reduced the literature which I then reviewed before using the findings to explain my research data.

## **Background**

There are three types of pathogenic Chlamydiae of which *Chlamydia trachomatis* is the one known to be the major cause of sexually transmitted disease (Health Protection Agency, 2009a). Chlamydia (*trachomatis*) has long been recognised as the commonest bacterial STI in the Western world. The organism is intracellular and can commonly be detected in the urethra and cervix. By 2009 the rate of infection continued to rise particularly in young people aged 15 to 25 years (Department of Health, 2009a).

In 1998 the Chief Medical Officer declared that the lifelong implications of Chlamydia infection are severe, and recommended improved management including opportunistic screening. In response to this a pilot study offering opportunistic Chlamydia screening to young people aged 16 - 24 years old was established in general practice (Department of Health, 2000a, Department of Health, 2000b). The findings from this pilot study showed that young people found opportunistic screening acceptable and the prevalence rate of infection in those screened was 10 - 12%. The recommendation from the pilot study was that a national screening programme should be rolled out across England.

Reported cases of Chlamydia had almost doubled during the 1990s and around 90,000 new diagnoses were made in England in 2003 (Health Protection Agency, 2006). In 2003 the Department of Health launched the National Chlamydia Screening Programme (NCSP). This was rolled out in three phases. By March 2008 all primary care trusts (PCTs) were commissioning Chlamydia screening. Between 2003 - 2009 £150 million was spent on the programme (Department of Health, 2009a).

The NCSP is underwritten by the Wilson and Jungner criteria which was revised in 2003 with several adaptations made to the classic criteria, and several new criteria emerged (World Health Organisation, 2008). There are 22 areas which cover the condition, the test, the treatment and the screening programme. Those specific to Chlamydia screening are outlined in this chapter.

### ***The condition and natural history in relation to screening practice***

The screening criteria for a condition requires it to be an important health problem and the epidemiology and natural history, including development from latent to declared disease, should be adequately understood. There should be a detectable risk factor, disease marker, latent period or early symptomatic stage and all of the cost-effective primary prevention interventions should have been implemented as far as practicable (World Health Organisation, 2008).

Most people who are infected with Chlamydia have no symptoms (Health Protection Agency, 2009b, Chen et al., 2007). Therefore this is a significant reproductive health problem and it is estimated that between 10 - 40% of untreated infected women develop pelvic inflammatory disease which can lead to infertility (Health Protection Agency, 2009b).

There is no doubt that Chlamydia is well documented as an important health problem that has a high prevalence and may be devastating to the individual (Zenilman, 2009). Development from latent to declared disease is also well documented. Chlamydia is the leading cause of epididymitis in young sexually active men which can lead to male infertility (Woolley, 1992). There is a wealth of empirical evidence to support the aetiology of Chlamydia morbidity such as tubal factor infertility, pelvic inflammatory disease, ectopic pregnancy, ovarian cancer, cervical cancer and male infertility (Hay and Ghaem-Maghani, 1997, Hocking et al., 2008, Drugs and Therapeutics Bulletin, 1994, Low et al., 2007, Hay and Oakeshott, 2005, Department of Health, 1998).

Opportunistic screening pilot studies carried out between 1999 and 2000 in Portsmouth and the Wirral identified that as many as one in 10 young people were infected (Department of Health, 2000a, Department of Health, 2000b). However, prevalence can vary according to age, gender, geography and the setting in which studies have been performed. For example, in 2000 the National Survey of Sexual Attitudes and Lifestyle Survey (NATSAL, 2000) showed a Chlamydia prevalence of 3% in women and 2.7% in men aged 18-24 years. Whilst the UK general population postal Chlamydia screening study showed a prevalence of 6.2% in women and 5.1% in men aged 16 - 24 years (Macleod et al., 2005). A systematic review of Chlamydia screening prevalence studies undertaken in the UK shows that prevalence can also differ significantly according to the

setting (Adams et al., 2004). For example general practice clinic attendees were found to have a significantly higher prevalence rate than those in general populations.

Before the development of a screening programme all the cost-effective primary prevention interventions should have been implemented as far as practicable. The question should be raised as to whether sufficient primary prevention interventions had been implemented prior to the implementation of the national programme. The first annual report of the NCSP identifies the UK programme to be the first to include questions around sexual behaviour, such as use of condoms and number of partners (LaMontagne et al., 2004). This data was not published and could have been used to explain behaviour and screening patterns. This would support the notion that the national focus is on the achievement of annual targets rather than the lifestyle choices of the individual.

The medical model aims to identify those at risk of disease and provide expert intervention where needed (Naidoo and Wills, 2000). This underpins the Chlamydia screening strategy. This can be a short term cost-effective strategy and through appropriate selection has created some spectacular results - for example the eradication of small pox. However Carr et al. (2007) believe that screening should also be able to identify those at future risk and ensure preventative action. This may require approaches that are inherent in models of health promotion described by Naidoo and Wills (2000). These include empowerment for example behaviour change through one to one advice or mass campaigns; education to increase knowledge and skills about health lifestyles; and social change through policy for example the Chlamydia screening programme.

### ***Acceptability of screening***

The acceptability of Chlamydia screening is well documented and was made explicit in the first pilot studies in Portsmouth and the Wirral (Department of Health, 2000a, Department of Health, 2000b). However the psychological impact of a Chlamydia diagnosis must not be underestimated. A qualitative study of 17 women with a current or recent diagnosis of Chlamydia found there were three primary areas of concern: information needed to normalise and destigmatise Chlamydia; positive promotion of GUM services; and support that is available to address anxiety and advice on reproductive morbidity (Duncan et al., 2001). The study showed that before diagnosis

most women had perceived themselves as invulnerable to infection and associated infections to stereotypical concepts of contamination and delinquency. The diagnosis of infection led to feelings of anxiety and shock which has been reported in other studies (Duncan et al., 2001, Holgate and Longman, 1998, Darroch et al., 2003).

Underestimating the chances of acquiring Chlamydia is not unusual and may increase the incidence of reinfection and new infection. Darroch, Myers and Cassell (2003) found that women in particular tend to consider their vulnerability to contracting a sexually transmitted infection to be low. This was also found in a study of young people with a Chlamydia diagnosis (n= 1,075) more than half reported no symptoms. Of the 26% (n=285) of patients who re-attended the clinic it was found that 56 had a further Chlamydia diagnosis (Lee et al., 2004). There is substantial evidence to suggest significant reinfection rates particularly in young people (Family Planning Perspectives, 2010, Fung et al., 2007, Lamontagne et al., 2007).

Lamontagne et al. (2007) carried out an 18 month study of women aged 16 – 24 years recruited from general practices, family planning clinics and genitourinary medicine (GUM) clinics. Those women who were Chlamydia positive were tested every six months for Chlamydia. Re-infection rates were: mean 29.9 (19.7 to 45.4) per 100/person/year from general practices, 22.3 (15.6 to 31.8) from family planning clinics and 21.1 (14.3 to 30.9) from GUM clinics. Risk factors associated with higher re-infection rates were acquisition of new partners and failure to treat all partners. This study contributed to the evidence that rates of re-infection are significant in young women, although they did not identify whether screening increases or decreases the risk of re-infection.

### ***The test***

The test must be simple, safe, precise and validated with values that are known to be within the target population and with a suitable cut off point. The testing method should be acceptable (World Health Organisation, 2008).

Enzyme immunoassay (EIA) was the most commonly used diagnostic method for Chlamydia infection in the 1990s. This had a lower detection limit of 10,000 elementary bodies and lacked sensitivity for a screening assay (Peeling et al., 1998, Ely, 1995, Hay and Ghaem-Maghani, 1997). By 1998 technological advances had enabled nucleic acid

amplification techniques to become commercially available. The new assays had detection rates from one to 10 elementary bodies. The improved testing sensitivity enabled the use of non-invasive sampling, such as first catch urine and vulval swabs, rather than the previous practice of endo-cervical or urethral swabbing.

The international acceptability of self taken specimens is well documented (Department of Health, 2000a, Department of Health, 2000b, Macleod et al., 2005). However the self-taken screening methods do not require a face to face intervention between health professional and the individual screened. This reduces communication and potential health promoting opportunities that may influence risk reduction.

### ***The treatment***

The treatment should be evidence based and effective with early intervention and health care providers should provide optimum management (World Health Organisation, 2008).

The commonest effective treatment of choice for Chlamydia infection is a single dose of azithromycin. A one week course of erythromycin or doxycycline may also be prescribed for complicated infection or where indicated, such as pregnancy.

### ***The screening programme***

There should be evidence from high-quality randomised controlled trials that the screening programme is effective in reducing mortality or morbidity. Screening information should be understood by the individual being screened and enable them to make an informed choice. The programme must be clinically, socially and ethically acceptable to health professionals and the public and benefits should outweigh harm. The programme should provide value for money, be adequately resourced and monitored with quality standards (World Health Organisation, 2008).

The NCSP facilitates the provision of screening in core sexual health services (community contraceptive services, general practice, abortion services and community pharmacies). This approach uses a model which is similar to that used in other countries such as United States, Sweden and Denmark. This is supported by outreach work that aims to introduce young people to local sexual health services. Much of this

outreach takes place in local educational settings and youth and community centres. Access can be further extended by sending letters with a link to a website that offers a screening kit through the post or by sending kits directly to young people aged 15 - 24 (National Chlamydia Screening Programme, 2009b).

The NCSP aspire to integrate Chlamydia screening into other health care services. This utilises core service providers such as contraception providers and general practice in order to support expansion of service delivery. This may require service development and/or redesign of services which can be written into new or existing service specifications. Some private and independent providers such as Brook (2009) services and community pharmacies will need to have explicit commissioning arrangements and remuneration. Services, such as general practice, may expect incentives before incorporating this into their core business.

The key function of the central screening office (CSO) is the central coordination of the programme, which includes engagement of screening venues, data collection and reporting, monitoring of quality assurance and ensuring training for providers of screening (National Chlamydia Screening Programme, 2009b).

The aim of the NCSP was to have an evidence based cost-effective screening programme by 2007 (Department of Health, 2004a). However the evidence for this has been criticised. The Wilson and Jungner screening criteria state that programmes should be underpinned with evidence from high quality randomised controlled trials (Jungner, 1968).

Although Low et al (2009) found one randomised trial showing reduced pelvic inflammation in post abortion women screened for Chlamydia as opposed to those not screened, they found no trials showing the benefits of opportunistic screening in other populations. They also found an absence of evidence for screening under 25 year olds and conclude that high-quality randomized trials are required to determine the benefits and harms of Chlamydia screening.

A review of 25 primary studies on modelling the impact of screening on public healthcare costs has demonstrated that screening with a population prevalence rate of more than 5.7% is a cost-effective health protection programme (Ward et al., 2006). However, the Chlamydia screening pathways are more complicated and often incur

large additional costs. The national payment by results tariff is applied if clients are referred into specialist services such as genito-urinary medicine (GUM) for treatment and partner notification. Providers such as GPs may use this pathway if they consider the management of positive cases to be resource intensive.

The Chlamydia vital signs indicator measures the number of 15-24 year olds tested for Chlamydia external to GUM clinics. The Department of Health set this target at 25% (2009–2010) and to 35% (2010–2011). This required local programmes to implement high volume screening in order to achieve the targets. There were 6,696,101 15-24 year olds in England in 2008-09. The Chlamydia screening Vital Signs Indicator was 17% in that year but only 67 out of 152 PCTs achieved the target and the national average was 15.9% (National Chlamydia Screening Programme, 2009a). County Durham achieved 14.4% coverage and Darlington 17.3%. However this was a massive increase on the previous year where the national average was 4.9% and the local rate was 7.6% for County Durham and 5.3% for Darlington (National Chlamydia Screening Programme, 2008). This increase was largely attributed to inclusion of tests outside of local programmes (e.g. contraceptive clinics and general practice) identified via laboratory data reporting. In County Durham and Darlington there is equal activity between the local programme and external settings.

The recent report by the Comptroller and Auditor General states that screening rates of 26-43% are required in order to significantly reduce Chlamydia (Department of Health, 2009a). Whilst GP incentive schemes have been found to significantly improve activity these can be costly. Payments per test are variable between local programmes and have ranged from £4 (County Durham), £10 (The Wirral) and £25 (Portsmouth). The national audit report concludes that the national programme has not demonstrated value for money with delivery costs highly variable from place to place.

International evidence over the last 30 years has identified the significant morbidity arising from Chlamydia infection in both males and females (Low and Egger, 2002, Tyden and Ramstedt, 2000, House of Commons, June 2003, Centre for Disease Control, 2004, Department of Health, 2003a). Three mathematical models for measuring and predicting the outcomes of Chlamydia screening have been developed. These include cost-effectiveness estimated through reduction in the sequelae of infection resulting from Chlamydia screening (Roberts et al., 2007); prevalence reduction over time with high volume screening (Turner et al., 2006); comparison of pre screening

interventions and post screening outcomes (Kretzschmar et al., 1996). Therefore, it was considered that there was sufficient evidence to be confident that a screening programme for Chlamydia would be acceptable and feasible (Catchpole et al., 2003). Screening was also considered to be a cost-effective option for disease control (Honey et al., 2002).

In Britain, partner notification (interchangeably referred to as *contact tracing*) was first documented as a method of sexual transmitted disease control in the 19<sup>th</sup> century. In 1864 and 1866 the Contagious Disease Acts were passed to control venereal disease amongst the military. In 1942, rates of infection were considered a national emergency and partner notification was recognised as important in the control of infections (Cowan et al., 1996).

Contact tracing for sexually transmitted infections was initiated in the United States in 1937 by the Surgeon General (Ramstedt et al., 1990). This was developed in the United Kingdom in 1943 when a Medical Officer for Health inaugurated '*The Tyneside Scheme*' (Pattman and Gould, 1993). This continues to be used in the management of sexually transmitted infections today and is a key feature of Chlamydia screening.

Pattman and Gould (1993) published the first evaluation of the outcomes of partner notification for HIV in the UK. They concluded that this was a satisfactory method of ensuring patient access to services, and recommended an integration of notification services throughout the United Kingdom. Oxman et al (1994) compared studies from Canada and the USA on the effectiveness of partner notification strategies. They conclude that patient referral (where the person diagnosed with infection notifies partners) to be more effective than provider referral (where details are given to a health professional to contact partners). However partner notification does not change behaviour, and the prevention of infection through behaviour change must remain a cornerstone in infection control (Cowan et al., 1996).

### ***Public health perspectives***

The Faculty of Public Health (UK Faculty of Public Health, 2012a) define public health as:

*"The science and art of preventing disease, prolonging life and promoting health through organised efforts of society" (Sir Donald Acheson)*

The Faculty define the approach to public as being: population based; emphasises collective responsibility for health, its protection and disease prevention; recognises the key role of the state, linked to a concern for the underlying socioeconomic and wider determinants of health, as well as disease; and emphasises partnerships with all those who contribute to the health of the population (UK Faculty of Public Health, 2012b).

The Faculty of Public Health (2012b) describe the three domains of public health practice as: health improvement, health protection and health services. Chlamydia screening fits into all three domains. As a model for health improvement screening can reduce health inequalities in a given population and contribute to the surveillance and monitoring of disease. As a model for health protection Chlamydia screening can protect against disease through partner notification and prevention of onward disease transmission. As a model for health services Chlamydia screening provides a clinically effective and safe method of disease detection and treatment.

Following changes to the Health and Social Care Bill (Parliament UK, 2011) the Department of Health produced a list of what should be funded from the public health budget following the transfer of public health services to local authorities in 2013 (Department of Health, 2010b). Sexual health services (including Chlamydia screening) will remain one of the mandated responsibilities for public health.

As part of the NHS reforms, the Department of Health also produced the Public Health Outcomes Framework for 2013-2016 with the overarching outcomes of increasing healthy life expectancy and reducing differences in life expectancy and healthy life expectancy between communities (Department of Health, 2012). These outcomes will focus on how long people live and how well people live. The indicators will be grouped into four domains which are: improving the wider determinants of health; health improvement; health protection; and healthcare public health and preventing premature mortality.

The House of Commons (2003) expressed concern that sexual health services were not meeting the needs of young people. The national Chlamydia screening programme is underpinned by international epidemiological evidence of disease prevalence. Epidemiologists assess risk by the statistical probability of adverse events (Ewles, 2005). If services such as Chlamydia screening met the governments perception of the needs of young people it would be feasible to expect a decrease in sexually transmitted

infections and unwanted pregnancies. However, this concept does not account for the individual choice and the right not to choose what may be considered healthy, or for the positive outcomes that risk taking may provide.

Government policy (Department of Health, 2001a, Department of Health, 2004b, Department of Health, 2001b) has aimed to improve sexual health through informed choice, personalisation and working together. This does not necessarily respect the individual's right not to choose a healthy option. This approach to health is underpinned by the behaviour change model which encourages people to adopt healthy behaviours. However, this assumes that people can and would want to change their lifestyle.

If the goal of this approach is to alter an individuals' cognitions and to *empower* them to make healthy choices, we must assume that they have been *disempowered* in the first place and would want to change. The Chlamydia screening process may be seen to empower young people to take control of their health but this may in fact disempower them with the expectancy that they will make what are considered to be the healthy choices.

This policy uses a humanistic approach which assumes that consciousness, freewill and selfhood are what define us as human (Gray, 2002). Yet Gray (2002) would argue that personal autonomy is the work of our imagination and that the cult of *choice* reflects the fact or the assumption that we must improvise our lives. The fact that we cannot or may choose not to marks our un-freedom. We must question whether public health programmes create freedom to choose or whether they create un-freedom with the expectation that the healthy option will be adopted.

The assumption that providing healthy choices leads to healthy behaviour, is not a single predictor of behaviour. This does not take into account motivational forces such as pleasure and sex when understanding behaviour (Katz, 2000). This may suggest that risky behaviour associated with the pursuit of pleasure and short-term gratification is more attractive to an individual than the longer term goals of good health.

Prevention activity needs to consider the wider determinants and causal factors of ill-health in order to facilitate health improvement. The links between drugs, alcohol and unplanned sex suggests a reduction in sexual inhibitions as well as lowered concern regarding the prevention of sexually transmitted infections (Booth et al., 2000, Zablotska

et al., 2002, Chersich et al., 2009). Furthermore the opportunities for alcohol use and sexual encounters appear to co-exist in both social dynamics and physical locations (Chersich et al., 2009).

An American study of college students and non-students aged between 18-22 years (n=20,858) found alcohol to be a robust correlate of STIs (Wu et al., 2009). In both group's alcohol use and marijuana use increased the odds of both a past year STI and a lifetime STI. The links between alcohol and sexual health will be explored within this study but it must be noted that neither the national Strategy for Sexual Health and HIV (Department of Health, 2001b) or the Alcohol Harm Reduction Strategy (2004) make these links explicit.

At the time of completing this thesis the Royal College of Physicians (2010a) released a report on the relationship between alcohol and sex. They made recommendations, including: the need for joined up policies and commissioning that make the link between sex and alcohol; specific training for health providers; population based approaches such as protection from marketing and pricing; and the need for research on the interface between alcohol and sexual behaviour with an emphasis on the factors that influence behaviour and the cost-effectiveness of interventions to modify them. The increasing evidence of the strong links between individual risk behaviours requires effective and efficient integrated policy responses to multiple risk taking behaviours (Hale and Viner, 2012).

As an epidemiologically driven medical approach to improving public health, Chlamydia screening in isolation can be criticised for ignoring the social and environmental determinants of health and for reducing the opportunity for health promoting strategies (Naidoo and Wills, 2000). There are a range of health promotion models used today including the medical approach which is aimed at reducing morbidity and premature mortality through medical intervention; the behaviour change approach which encourages individuals to adopt health behaviours; the educational approach provides knowledge and information to develop skills that enable individuals to make an informed choice regarding their behaviours (Ewles and Simnett, 2003). Kolb (2011) provides a descriptive model which suggests there are four stages to the adult learning process: concrete experience, reflection, abstract conceptualisation and active experimentation. This model may be able to explain how individuals perceive their risk and how this affects their subsequent behaviour. Bruner cited in Gross (2005) also the significance of

language and interpersonal communication to individual learning. The empowerment approach helps people to identify their own concerns and to act upon them – this can be individual and client centred or in groups as community development such as through youth groups. The social change approach acknowledges the socio-economic environment in determining health and aims to address inequalities through social regulation (Ewles and Simnett, 2003).

These approaches have been criticised for a number of reasons including using measures and ideals of health that are prescribed by health professionals, idealistic, being expert led and victim blaming of those who do not adopt what is considered healthy (Ewles, 2005). The relevance of this will be discussed in later chapters.

The public health consequences of Chlamydia are managed through opportunistic screening, treatment of individuals with infection and management of partners. Opportunistic screening often relies on young people attending certain places such as colleges or engaging in certain activities such as sports, which has the potential for the more disadvantaged to benefit the least (Jackson et al., 2012). Therefore, careful targeting embedded within universalism which Marmot (2010) refers to as 'proportionate universalism' is essential to reducing health inequalities.

Ting-Wai-Chu et al. (2012) believe that a public health approach to parenting programmes at a population level, based upon social learning and behaviour theories are required for parents of adolescents. Protective factors such as responsive parenting and high levels of family support have been found to delay the onset of risk taking amongst teenagers (Velleman, 2009). These protective factors are what Kegler et al. (2003) call assets. The attempt to reduce sexual risk taking using the 'glass half empty', problem or deficit-based approach tends to have minimal attention to building strengths or assets (glass half full) (Kegler et al., 2003). An asset-based approach uses any factor or resource which enhances the ability of individuals, communities and populations to maintain and sustain health and well-being and offer protective and promoting factors to buffer against life's stresses. In an asset based study, Brooks et al. (2012), found that feelings of safety and belonging in out of school settings were positively associated with reduced risk taking, indicating the importance of the wider community, alongside parents and schools, as protective assets for the health of young people. The asset approach is complex and will need to work across traditional professional and organisational silos (Hudson, 2010).

Hay and Oakeshotte (2005) used a problem based approach in a study with pregnant teenagers educated on the harms of smoking and drugs. They found that smoking reduced whilst recreational drug use such as cannabis and ecstasy continued despite the knowledge of the risks to themselves and the unborn child. The problem based approach to health rather than an asset-based approach is adopted in the Chlamydia screening programme using education and awareness to complement the medicalised model of disease reduction through the principles of detect and treat. This does not ask the question of what causes the causes of ill-health?

Public health interventions therefore should consider assets that delay risky behaviour and promote the development of individual skills and behaviours required to negotiate risky situations (Redgrave and Limmer, 2005). However, without an understanding of the causal factors to risk taking behaviour, and recognition that risk taking may be a conscious decision, interventions may be ineffective.

### ***Conclusion***

The significance of Chlamydia infection to population health is well documented. Whilst the cost benefit analysis of a national screening programme supported the inception of the programme in England, service evaluation and national spend appear to suggest that this is an expensive initiative. Technological advances in testing platforms have enabled acceptable methods of non-invasive screening that young people are able to undertake without the need for interaction with health providers. However, most PCTs are unable to achieve the high volume screening required by the national targets in order to reduce prevalence of infection in the population. Causal factors that may influence risk taking behaviours and subsequent morbidity such as alcohol consumption and peer pressure will be explored in the subsequent chapters where emergent interview data has been categorised and analysed using a range of theoretical disciplines.

## **Chapter Four: Literature on risk awareness, risk taking and the implications for behaviour**

*“The brave may not live forever but the captives may not live at all”*

*(Richard Branson, 2008)*

### ***Introduction***

In order to understand the factors that influence the risk taking behaviours of young people, this chapter has reviewed the literature in relation to behaviour, risk and risk taking. This review aimed to understand the theories and concepts around these behaviours, and provides a context for the behaviours of people who indulge in risk taking whilst being aware of their risks and having sufficient knowledge about how to avoid them.

In health care risk taking is generally discussed as a negative concept and blamed for what are considered to be poor health choices and health threatening behaviours. Lupton and Tulloch (2002) challenge this in their belief that risk taking may give a sense of control and feelings of accomplishment for some people.

Theory was used to explain behaviours observed at screening venues, and for the analysis of individual interview accounts, in order to understand how individuals make sense of their world, and to explain risk taking. These theories have been applied to findings in order to inform public health practice. As this research was designed to use grounded theory, further theories were used as data emerged from individual accounts which have been identified and discussed throughout the analysis chapters.

Psychological theories including behavioural, cognitive, developmental, humanist, personality, and social psychology have been used in this chapter to categorise and discuss the literature on risk taking. This theory was developed in later chapters to explain findings such as herd behaviour (e.g. social drinking patterns), issues of control, how young people perceive and offset risk, and the perception of knowing.

### ***Risk taker or entrepreneur?***

Richard Branson is a well known example of positive attitude and outcomes regarding risks. He is a billionaire who has built his company (Virgin) into one of the world's biggest brands: "he's brash and not afraid to take risks" (World Luxury Network, 2010). So how did the dyslexic and short sighted child who still could not read by the age of eight become one of the world's leading entrepreneurs of the past several centuries? In his autobiography 'Losing My Virginity' (Branson, 2009b) Branson declared that his family would have killed for each other, and describes his parent's determination to make their children independent. He recalled when he was aged four that his mother stopped the car and encouraged him to find his own way home which was a few miles away across the fields.

He grew to become an icon, developing businesses with his most risky, brilliant and audacious deals (Branson, 2009a). As a young man stranded in the Virgin Islands due to a cancelled flight he chartered a plane for \$2,000, divided the cost between the numbers of stranded people and wrote on a blackboard: 'Virgin Airways \$39 single flight to Puerto Rico' (Branson, 2009a) - the idea for Virgin Airways was borne. Branson explained his attitude to risk in his book 'Screw It Lets Do It' (Branson, 2006). He advised people to be bold, calculate the risks and take them but don't gamble on what you cannot control, being in control is essential to success. Adams and Hillman (2001) define this as 'risk compensation' based on the assumption that we all have a risk thermostat which alters our behaviour according to our risk comfort and the environment in which the risk is considered.

This introduction has suggested that there are many conceptions and attitudes towards risk. It is not surprising to find that there are many definitions of risk and that the multiple relevant academic disciplines which often refer to the balance of potential gain and potential losses interrelated with the associated gains and consequences of given actions (Leather, 2009). Lupton and Tulloch (2002) state that as a society we emphasise the avoidance of risk which is strongly associated with the ideal of the civilised body. However, a systematic review by Turner et al (2004) found that risk-taking behaviour was either considered to be socially unacceptable with negative outcomes e.g. drink driving or as socially acceptable behaviour with recognised dangers such as in competitive sports.

## ***Personality***

According to psychodynamic theories of personality development, childhood experiences and biological forces have shaped the way we are (Davenport, 1992). Freud believed that the personality is made up as a number of parts: the *id* present at birth is concerned with psychic energy requiring immediate satisfaction; the *ego* from one year onwards is realistically trying to relieve the *id*'s demands; and the *super ego* develops around the age of six years, providing the moral sensor of the *id* and *ego* (Gross, 2005). Social learning develops with the *ego* with an awareness of the limits that the world places upon the *id* (Chapman, 1988). Freud's theory of personality may give some explanation to the findings of Katz et al (2000) who identified the importance in the short term benefits of pleasure; where the demands of the *id* and the *ego* for immediate satisfaction outweigh the moral sensors of the *super ego*.

In Freudian theory it is the *super-ego* that produces ambition, as demonstrated by Richard Branson, and an important area of personality trait is motivation (Chapman, 1988). However, criticism has been expressed at Freud's theories as they are considered to lack validity and view the role of the child as passive, responding to external forces (Davenport, 1992). Gross (2005) discussed Adler's work which developed Freud's theories and believed that the most important force is the desire for power. In a review of Erikson's work, Davenport (1992) described the extension of Freud's theories over the whole of a person's life explaining personality development, with the failure to achieve a satisfactory mastery of the different stages resulting in behavioural disorder.

Rotters' 'social learning theory' is based upon the belief that personality is an interaction between the individual and their environment. He combined behaviourism with personality theory without the physiological drives that may motivate the individual. He identified four main components to this theory predicting behaviour which were behaviour potential, expectancy, reinforcement value and the psychological situation (Rotter, 2010b). Rotter believed that if you can change the way a person thinks or their environmental factors then you can change behaviour (Rotter, 2010b). Social learning theory may explain herd behaviour such as social drinking (alcohol) patterns and behaviours predetermined by alcohol expectancy.

Becker (1997) offers an understanding as to why those individuals who demonstrated an awareness of the risk consequences continue to engage in risky behaviour. He believes that those with an external locus of control may activate an anxiety buffer that protects from the feeling of being vulnerable (Davenport, 1992).

The locus of control is the perception that an individual has of themselves and the control that they have of their life and is an important aspect of personality (Neill, 2006). A person with an internal locus of control believes that both positive and negative events are a consequence of their personal actions. A person with an external control believes that events are unrelated to their personal behaviour and therefore beyond their control. Locus of control bridges personality and cognitive psychology.

Miller and Mulligan (2002) have found that individuals may be more likely to engage in risky behaviour if they perceive outcomes to be out-with their control and if risk behaviour will result in raised self-esteem. However, in a systematic review of 38 publications Goodson et al (2006) found no correlation between adolescent self-esteem and behaviour, attitude or intention. In their study of mortality salience Miller and Mulligan (2002) found that individuals with an external locus of control were more likely to make risky choices despite their assessment that the choices were extremely risky. This has been found in numerous studies where high levels of knowledge are related to increased risk taking behaviour (Sjoberg et al., 2004). For those with an internal locus of control the consideration of mortality salience led to less risky behaviour. Whilst internals were found to share the same assessment of risk for themselves and others, externals considered risk to be greater to themselves than others.

Crisp and Barber (1995) found that the appraisal of risk did not lead to a change in behaviour for injecting drug users with an internal locus of control. They also found that injecting drug users with an external locus of control did not make the association between their level of risk and their behaviour. Tenn and Dewis (1996) also found no change in behaviour of young people with an internal or external locus of control, following a health intervention. In a study of young people with regard to personal safety (riding a bike), students were given safety information in three groups; those educated by peers, those educated by teachers and a control group not educated by either. Locus of control was assessed using a list of 10 behaviours and participants (n=106) were asked to identify in a self-completed questionnaire the frequency of their behaviours.

Results found that in all groups there was no change in knowledge, or personal intention to reduce risk taking behaviour.

In 1966 Rotter developed the 13 item self-completed questionnaire in order to measure the generalised expectancies of internal versus external control of reinforcement (Rotter, 2010a). This measures the self-reported expectancies of the internal versus the external perception of control. Scores ranged from 0 - 13. Statements chosen were either internally focussed, such as 'people's misfortunes result from the mistakes they make' or externally focussed, such as 'many of the unhappy things in people's lives are partly due to bad luck'.

A low score is said to indicate an internal locus of control whilst a high score indicates an external locus of control. Rotters' framework has since been developed including a multidimensional locus of control with the addition of three beliefs that influence the locus of control. These are: *internality*, for example 'if I get sick it is my own behaviour which determines how soon I will get well again'; *powerful others*, for example 'having regular contact with my physician is the best way for me to avoid illness'; and *chance*, 'no matter what I do, if I am going to get sick, I will get sick' (Wallston et al., 1978).

Ajzen (1991) argues that there is a significant difference between the perceived locus of control and the perceived behavioural control that may explain these behaviours. He offers the example of an individual who believes that they are in control of their own actions (internal locus of control) but who also believes that becoming an airline pilot is unlikely (low perceived behaviour control). Ajzen (1991) argues that whilst the generalised expectancy of the individuals locus of control remains constant, the perceived behavioural control will change according to situation and actions. His interests include how we form attitudes, how they affect our behaviour, the relation between knowledge, intentions and behaviour, and habitual versus reasoned action.

Another personality trait associated with risk taking is sensation seeking (Leather, 2009). Individuals and particularly adolescents can be influenced by how they perceive the effects of risk taking in the form of sensation seeking (Grinblatt and Keloharju, 2009, Piko, 2001, Kenny, 2010). The individual requires a perception that the risk taking will provide a desired effect (Piko, 2001). Of course this perception of a positive outcome may be completely different to that of an adult (Leather, 2009). Lyng (1990) considers

sensation seeking to be impulsive and a gamble, rather than a calculated, controlled risk.

### ***Cognitive***

Cognitive psychology is the study of how people perceive, remember, think, speak, and solve problems and is therefore important in explaining behaviour (Gross, 2005).

Risk awareness is a key public health strategy which assumes that the public will adjust behaviour in order to avoid risk (Cook and Bellis, 2001), although this is discordant with the concept that individuals may actually value risk taking. Sexual health promotion uses education to increase access to support, advice and services (Ewles, 2005).

The cognitive learning domain has many levels from the easier recognition and recall of knowledge to the more advanced evaluation and decision making. This approach is based upon the principle that learning occurs through exposure to logically presented information (Reece and Walker, 1994). The educational approach aims to give information, knowledge and understanding in order to enable 'well informed decisions' to be made about issues. The individual has the right of choice and the health promoter identifies the educational content required (Ewles and Simnett, 2003).

The concept of reducing risk taking behaviour in school children is criticised by Paton (2007) who argued that we are creating a nation of 'cotton wool kids' by not letting them negotiate risk, for example, by holding school sports days with no winners and offsetting injury by wearing goggles when playing conkers. Christensen and Mikkelsen (2008) support this concept and found that engaging in risk taking activities enabled children to learn from their mistakes. They observed that children were unlikely to 'blindly' throw themselves into risk taking behaviours; instead they considered risks and adjusted their behaviour accordingly. Paton (2007) also attributed the risk reducing efforts of teachers to the lack of communication and entrepreneurial skills of academically bright students.

In 2003 the Department of Health produced a sexual health toolkit for effective sexual health promotion which recognised the need to use a range of approaches, including media marketing and community approach to improve sexual health. This toolkit used an educational approach for many of its objectives to raise awareness, educate, inform and enhance the skills of individuals with the assumption that improving and enhancing

these areas will result in better sexual health choices (Department of Health, 2003b). The toolkit supported the national healthy school standard launched in 1999. This embraced education as a tool to behaviour change and required that all local education authorities became involved in an accredited education and health model (National Institute for Clinical Excellence, 2002). However, there are a range of studies that demonstrate even where young people are aware of the consequences of their risk taking behaviour they do it anyway (Sjoberg et al., 2004, Adams and Hillman, 2001, Bradford-Brown, 1986, Brewer et al., 2007, Cook and Bellis, 2001).

### ***Behavioural***

Behavioural psychology is based upon the proposition that all things that we do including acting, thinking, and feeling should be regarded as behaviours. Risk taking behaviour is frequently defined as the balance between short-term gains and long-term consequences (Leather, 2009, Katz, 2000, Torgerson and Raftery, 1999).

Since Wicker's research in 1969 found no relationship between attitude and behaviour, social psychology has sought to identify the predictive power of attitude (Armitage and Conner, 2001). The theory of planned behaviour was developed by Ajzen (1991) and has been used to predict behaviour and to provide a framework for planning behaviour changing interventions. Behaviour is determined through intention and perceived behaviour control. Intention has three underlying variables – attitude, subjective norm and perceived behavioural control. The intention summarises the motivation of the individual to change behaviour and the amount of effort that they are willing to give. Perceived behaviour control is the evaluation of the individual at the ease or difficulty that the behaviour will require. The independent variables underpinning intention include attitude, subjective norm and perceived variable control. *Attitude* may be positive or negative or both e.g. 'alcohol can give me confidence' and 'alcohol may cause regretful behaviour'.

Another variable is the *subjective norm* which is associated with the perceived social pressure to engage in the behaviour from those considered to be significant others, such as peers or parents. One example given by Sjoberg et al (2004) is that an individual's risk taking can be rationalised as 'others' are perceived to be taking the same or greater risks. They also found that pressure was experienced to take risks so as not to be seen as a 'sissy' by peers. Peer norms have been found to affect risk taking

behaviour associated with sexual behaviour and drug and alcohol consumption (Sinha et al., 2007, Rose et al., 1992). This was supported in a systematic review by Kerr and Matlak (1998) who identified media glorification as a factor in relation to increased alcohol use related to sexual risk taking. Anderson et al (2009) also supported this in a systematic review of the media in relation to alcohol advertising and adolescent alcohol consumption. Findings showed in 12 out of 13 studies that media exposure affected onset of drinking for non-drinkers and increased consumption in existing drinkers. Other contributing factors included family and peer drinking. The expectancy that alcohol can lead to increased sexual activity has also been found in trials where subjects were given placebo alcohol leading to the conclusion that sexual arousal is not limited to pharmaceutical effects alone (George et al., 2000, George and Stoner, 2000). Furthermore, social anthropologist Kate Fox (2011) suggests that alcohol expectancy may be used in order to excuse behaviour, blaming the alcohol rather than the individual.

In a study to predict driving behaviour, Elliot et al (2007) found that intention was the statistically significant independent predictor of behaviour; drivers who were motivated to comply with speed limits were less likely to speed and more likely to drive longer without exceeding the speed limit. Attitude, subjective norm and perceived behaviour control accounted for 54% of the variance in observed behaviour, whilst intention and perceived behaviour control accounted for 67% of the variance in self-reported behaviour. Overall there was a strong correlation between self-reported behaviour and observed behaviour concluding this to be a satisfactory proxy of measurement in this context.

The theory of planned behaviour is often used to predict single actions such as use of outreach service or kidney donation (Elliott et al., 2007). However, intention to sustain behaviour tends to be reduced with time. In a study of diabetes control Shankar et al (2007) attempted to predict maintenance of a frequently repeated behaviour. They found that factors such as past behaviour (e.g. exercise and sport / feeling hypo) and perceived difficulty (e.g. being able to monitor blood glucose levels throughout the day) were significant influences on intention. Fishbein and Ajzen (1974) believe that the observation of a single action is the reflection of a variety of factors that are unique to that occasion, situation and action. They found that aggregating different behaviours observed at different times and in different situations to be a more reliable measure of the underlying behavioural influences than that represented in any single behaviour.

Cooke and Sheeran (2004) define the extent to which cognitions remain constant over time as *temporal stability*. This may help to explain how and why risk taking behaviour occurs. In a review of 44 studies they found seven properties of cognitions which were all considered to be reliable moderators of cognition-intention and/or cognition-behaviour. These properties are:

*Accessibility*: the strength of the association between the attitude and the behaviour measured by the latency between asking the question (designed to measure cognition) and the response of the individual. Ajzen (1991) describes this as 'how hard people are willing to try' but states that behaviour can only occur if this is under 'volitional control' i.e. if it is within the individuals control to perform or not perform the behaviour.

*Temporal stability*: how cognitions remain constant over time usually measured at two different points in time. The maintenance of behaviour over time is an important process which is considered essential to sustained behaviour change (Elliott et al., 2007). Temporal stability is considered to be a defining feature of strong attitudes (Cooke and Sheeran, 2004). However to predict behaviour over time, intentions and perceived behaviour control must also remain constant over time.

*Direct experience*: this requires the actual experience of behaviour as opposed to indirect experience, such as reading about behaviour. Direct experience is more likely to produce stable cognitions and create more consistent cognition-behaviours. Christensen and Mikkelsen (2008) referred to this as 'learning from mistakes'.

*Involvement*: individuals will become involved if issues are personally relevant and the more involved the individual becomes the greater the attitude-intention. This may be supported in the observations of Hunt and Macleod (1988) where young people involved in risk taking behaviour such as smoking will attempt to offset the risk to health by using the gym. It is argued that people will tend to consider risks that are voluntary as less serious and the more common risks as less disastrous (Lupton and Tulloch, 2002). As Denscombe (2001) observed, even those with an awareness of health risks would go ahead and do it anyway (alcohol and tobacco use). For example, when considering this in relation to Chlamydia screening it is possible that receiving a negative Chlamydia result may create a false sense of security and reinforce the belief that 'it will never happen to me'. This is described by Sjoberg et al (2004) as an '*overly optimistic view of oneself*' when it comes to personal risk (e.g. tanning and skin cancer). Joffe (2003)

refers to this as the tendency towards 'overconfidence' regarding ones' own judgments of risk and the 'optimistic bias' that are involved in the faultiness of human information processing.

*Certainty*: the more certain an individual is of their attitude the more likely the behaviour will become. Ajzen (1991) describes this as *confidence* stating that persons with equally strong intentions can have differing perceived behavioural control, for example two people can have the same intention to learn to ski although the person who is confident that he can achieve this is more likely to persevere than the person who doubts himself. Richard Branson describes this as believing in oneself (Branson, 2006). However as raised by Joffe (2003) in the point above there is the health threatening ability of the individual to be incorrectly overconfident.

*Ambivalence*: attitude can be considered to be either positive, negative or neutral although Cooke and Sheran (2004) argue that an individual can hold both a positive and a negative attitude towards the same behaviour. Whilst a less ambivalent attitude can create greater attitude-intention and attitude-behaviour, the opposite has also been found where higher ambivalence can create more systematic processing of information leading to predictive behaviour. The findings of Brown (2005) may support the latter concept where risk takers were found to have higher perceptions of their motoring risk taking than non-risk takers.

*Affective-cognitive consistency*: when the affective (feelings) and cognitive (thoughts) are consistent they produce more stable attitudes that are better predictors of behaviour. The humanistic approach may in part reflect this theory where the promotion of self-worth and self-esteem are motivators to 'making the most of oneself'. Becker's theory of heroism may also offer some explanation where for example knowingly taking risks that increase self-esteem is preferable to risk taking that does not increase self-esteem (Becker, 1997).

Cooke and Sheeran (2004) found that all of these properties, with the exception of involvement, moderated attitude-behaviour predictability. Temporal stability moderated perceived behavioural control; certainty moderated subjective norm; ambivalence, certainty and involvement moderated attitude. Overall temporal stability was found to be the strongest moderator of behaviour.

## ***Humanism***

Humanistic (social learning) psychology was developed as a reaction against behaviourism. Behaviourism was seen as reductionist; reducing the concept of the human being such as Skinner's operant conditioning theory (Gross, 2005). The humanist approach uses the teacher to promote worth and self-esteem, which is believed to assist an individual to 'make the most of themselves'.

Maslow is a humanist who is best known for his theories of motivation and his hierarchy of human needs that aspire to: *self-actualisation* at the top; followed by *self-esteem*; *love and belonging*; *safety and shelter*; and finally the basic need of *physical* wellness.

The best protection from death anxieties is to engage in dangerous behaviour that leaves one unharmed or confirms that their worldview is widely shared by others (Miller and Mulligan, 2002). In a series of four studies Ben-Ari et al (1999) found that mortality salience led to more risky behaviours (reckless driving) in individuals who perceived driving as relevant to their self-esteem. Furthermore young people who perceived reckless driving as non-relevant to their self-esteem were less prone to reckless driving.

Maslow believed that people would seek a higher need only when the lower needs were met; if a student was hungry or cold then learning would be reduced (Reece and Walker, 1994). However, Skinner's research into operant conditioning demonstrated that people can be conditioned to behave or not behave in ways based on punishment and reward, and that individuals can be motivated to learn through the process of positive reinforcement (Marquis, 1998).

Becker (1997) believes that it is the natural human act of heroism which is essential to self-esteem. He adds that the high self-esteem of an individual can act as an anxiety buffer in response to risky behaviour promoting the likelihood of increased risk taking. Heroism is defined by culture, which is referred to by anthropologists as 'cultural relativity'. This means that in society there are culturally defined levels of heroism. These levels can range from high heroism such as Churchill or car racing to low heroism such as a coal miner. This is supported by Ben-Ari's study who found risk taking to be a cognitive and behavioural attempt to increase self-esteem by living up to the values set by the individual's society and culture (Ben-Ari et al., 1999).

## ***Developmental***

Developmental psychology is concerned with the study of psychological, emotional, and perception changes that occur in individuals over the course of their life span (Gross, 2005). Adolescence has a heightened potential for recklessness than any other developmental period, in any culture, or any time (Arnett, 1992). Psychological theory discusses the adolescents' 'right of passage' from childhood to adulthood (Gross, 2005). The incongruence of young people achieving biological maturity without adult status may lead to risk taking behaviour as an 'escape'. It is thought that risk taking may be a thrill seeking stage of adolescent development en route to the acquisition of adult skills (Davenport, 1992).

Fontanna (1988) discussed the work of Jean Piaget who believed intelligent cognitive activity to be an extension of basic biological characteristics and proposed that children develop sophisticated patterns of thinking through maturation, and according to a set pattern and a stable timetable. Piaget explained the concept of egocentrism in children and adolescents, which is the ability to place themselves at the centre of social actions, and the projection of their personal qualities onto others (Skidmore and Hayter, 2000). A major criticism of Piagets' theory is that he saw children as independent, and excluded the contribution of other people to a child's cognitive development (Davenport, 1992).

The odds of multiple risk behaviours including drug and alcohol use, sexual behaviour, smoking, fighting, carrying weapons, seatbelt and helmet use, increase particularly over the teenage years (Spring et al., 2012, Hale and Viner, 2012, MacArthur et al., 2012, Jackson et al., 2012). The egocentric adolescent may believe that others are as preoccupied with their behaviour as they are, and construct an imaginary audience (Arnett, 1992). In relation to reckless behaviour, the imaginary audience leads the adolescent to consider themselves to be unique, as so many others are concerned with their behaviour. As their lives are so exceptional, they consider themselves to be invulnerable to the consequences of risk taking behaviour – Arnett (1992) refer to this as a 'personal fable' – a story told to oneself that is not true, which underlies adolescent risk taking behaviour. However, when a child is forced to take on the perspective of another they can become 'decentred' (Damon, 1984), which may be the point when 'acceptable' behaviour is considered 'unacceptable'.

Bruner cited in Gross (2005) stresses the important role of language and interpersonal communication in learning theory and adolescent development. This requires active involvement by expert adults or peers, insisting that students must be taught how to analyse problems and how to think for themselves.

Becker (1997) referred to a phenomenon in child development which he called the 'negative instinctive response' to anything life-threatening. Because of the dependency upon the parent or care giver for need fulfilment, the child must stay in their 'good graces' leading to a correlation between behaviour and outcome. This was explained by Thorndike and later Skinner as the theory of operant conditioning – behaviour that can be evoked in order to gain a reward (Davenport, 1992).

Greenberg et al (1993) believe that the parent values reflect that of 'the culture at large' and the child learns to link these cultural standards to safety and security. Consequently the perception that one is good (high self-esteem) is associated with security whilst the perception that one is bad (low self-esteem) is linked with anxiety. As the child grows and develops their sense of identity and control over their life, they realise that the parent may not be solely responsible for providing security, their behaviours change (Greenberg et al., 1993). This is a time of individualisation as the child develops autonomy from the family, which can cause conflict with parental values (DiClemente et al., 1996).

Leather (2009) believes that the engagement in risk taking by adolescents may arise from the need to regulate their emotions resulting from relationships with parents and peers. Indeed, many studies demonstrate the risk taking by adolescents, many of which occur in multiples such as smoking, drug and alcohol use, and sexual behaviour (Independent Advisory Group on Sexual Health and HIV, 2007, Bonomo et al., 2001). Lupton and Tulloch (2002) consider risk taking to be a normal, if not essential component in the development of young people.

As young people experience body changes when they go through puberty, this has been found to have a negative and often embarrassing impact on girls, whereas for boys, this tends to be a positive process (Alsaker, 1992). Some studies have found gender differences to be reflected in the sex and alcohol risk taking behaviours of young people (Lindsay, 2003), whilst Bradley and Wildman (2002) found no gender differences in reckless behaviours of young people, and Sutherland et al. (2008) found no gender

differences in the age at first sexual encounter. MacArthur et al. (2012), conducted a prospective UK birth study (ALSPAC) of alcohol use and binge drinking, and found prevalent multiple risk taking behaviours in both genders during adolescence, with the pattern of individual risk varying between boys and girls. There were no clear gender difference for hazardous drinking, although boys aged 15 - 16 were more likely to engage in antisocial and criminal behaviours, cannabis use and vehicle related risk, whereas girls were more likely to engage in smoking, self-harm and physical inactivity (MacArthur et al., 2012).

### ***Social***

Social psychology is concerned with how people's thoughts, feelings, and behaviours are influenced by the actual, imagined, or implied presence of others (Gross, 2005). Parents influence the behaviour and development of young peoples' social competence, and poor parenting practice has been associated with adolescent behavioural problems (Leather, 2009, Ting-Wai-Chu et al., 2012). Parenting style is considered to have two components: responsiveness; and demandingness, which also differ in the extent of their control (Crisp and Barber, 1995). There is evidence to suggest that authoritative parenting reduces risk taking in the developing adolescent by providing support, being involved, using communication and problem solving, conflict management, family rules, praise and consistency (Kipping et al., 2012).

Media attention often blames parents for the perceived poor behaviour of their children. Claims of poor parenting attributed to changing family values and lifestyles, is often portrayed by the media as a cause of adolescents who are considered to have unwanted behaviours, or be out of control (BBC, 2010b).

Shavinina (2006) reviewed the micro-social factors in the development of entrepreneurial giftedness using Richard Branson's autobiography as a case study. She identified a range of factors such as parental support, significant others and trust that contributed to the adult Branson personality and entrepreneurial talent.

The 'traditional family values' was a policy of the late Labour government. In her address to the House of Lords, Baroness Jay stated that 'marriage is the best way to bring up the children' (BBC, 2010b). This approach can incur what Naidoo and Wills (2000) refer to as 'classic victim blaming' of those individuals who do not or are unable

to make what is considered to be the '*appropriate choice*'. This victim blaming may also be demonstrated with the view that whilst some screening conditions such as breast cancer are largely out of the control of the individual (Carr et al., 2007), avoiding the risk of Chlamydia infection may be considered to be within the control of the individual.

Wegner and Flisher's (2009) review of 25 articles reported 'leisure boredom' as a factor contributing to risk taking behaviour in adolescents. They found that poor awareness of the value of leisure, negative attitudes towards leisure, low self-motivation and leisure constraints were factors associated with the perception of leisure boredom. One example that they described found young people (particularly males) who experienced high levels of leisure boredom had a tendency to consume large quantities of alcohol. This led to feelings of alienation that created a vulnerability to suicide and depression. One of the key findings of their review was that there are few studies that focus on leisure boredom and risk taking behaviour in adolescents - particularly in the developed world.

Studies such as from Lindsay (2003) and Hunt and Macleod (1988) explored the impact of 'environment' on young peoples' sex and alcohol risk taking. They found that those who were most likely to indulge in risky behaviour were also most likely to take actions considered to offset these risks. Lindsay (2003) explains young peoples' sex and alcohol risk taking according to their social patterns (friends and places to 'hang out'), influenced by social structures such as class and gender. Furthermore, this study found that the group ('party hards') most likely to indulge in risky behaviour such as illicit drugs, smoking, alcohol and sex were most likely to use condoms. The combination of healthy and unhealthy practice is not uncommon and has also been found in young people with alcohol and smoking risks who use gym attendance and exercise to offset their risks (Hunt and Macleod, 1988). This may be explained in a study by Brown (2005) who found that risk takers were able to display higher perceptions of risk than non-risk takers (motoring).

Peer pressure or the need to conform with peer groups can place tremendous pressure on young people (NHS Choices, 2011a). Erikson called this ego identity where the developing adolescent feels the need to 'belong' (Davenport, 1992). Adolescent is a time where young people are most susceptible to peer pressure, especially in relation to reckless behaviour (Arnett, 1992). However, 'attributional thinking' is a concept discussed by Rose et al. (1992) whereby an 'excuse' is provided to the individual to not

go along with the group. Internal attributions, for example liking to get high, may be more desirable than external attributions, such as pressure from others.

Risky behaviour has also been found to occur in multiples of more than one, such as smoking cigarettes and drinking alcohol, and tends to be influenced by developmental, social, health and environmental factors (Leather, 2009, Cook and Bellis, 2001). Multiple risky behaviours such as smoking, alcohol and drug use have been found to be associated with risks leading to teenage pregnancy (Imamura et al., 2007).

Katz et al (2000) explained the sexual risk taking activity of young people and stressed that the pursuit of pleasure and short-term gratification may seem more attractive to an individual than the longer term goals of good health. Lupton and Tulloch (2002) referred to this deliberate risk as 'emotional engagement' where the individual seeks a heightened degree of emotional intensity that provides pleasure away from the mundane of everyday life. Sjoberg et al (2004) stated that ignoring or underestimating risk to be a form of 'wishful thinking'.

### **Conclusion**

Healthy behaviour can mean different things to different people. Denscobe (2001) found that some people may choose *not* to be what is considered 'healthy'. How, what and why decisions that affect sexual health are made can be affected by a multitude of factors. The methods adopted in this research will attempt to explore the risk taking experienced by young people and the factors that may or may not influence their lifestyle choices.

This chapter has demonstrated that risk taking and behaviour are complex processes with no universally agreed methods of explanation. There is a multitude of contributing factors to be considered which I have attempted to discuss. These include perceived control over individual behaviour, factors influencing personal attitudes, previous experience, perceived costs and benefits of actions, and the affect of significant others and social situations.

These complexities need to be considered when attempting to explain single behaviours and an understanding of aggregate behaviours will be necessary in order to better understand underlying behavioural disposition. The public health approaches that are

used with young people today to reduce risk taking behaviours, such as the provision of health promoting information and media campaigns, will be explored in subsequent chapters. This chapter attempted to discuss the underpinning theory for risk taking and behaviour and upon reflection, the value of risk taking to young people is a key factor which needs to be considered by public health to inform practice. This will also be discussed in the subsequent chapters.

## **Chapter Five: Methods**

### ***Introduction***

This chapter will discuss the research approach and methods used in this study. It was intended that theory would be generated regarding the risk taking behaviours of young people who access Chlamydia screening. The objectives of this study were to:

- Understand the risk taking behaviours of young people who access Chlamydia screening
- Use a qualitative approach to identify the factors that influence risk taking behaviour
- Develop theory that will inform public health practice

### ***The research journey***

Following a series of unanswered questions from my masters degree I wanted to understand why rates of chlamydia were not reducing despite a successful Chlamydia screening programme in the locality and therefore needed to understand the risk taking behaviours of young people that may influence rates of infection.

There is international evidence that identifies Chlamydia as a common infection in young people that has severe health consequences (chapter three). Mathematical modelling suggests that screening and treating infection will reduce prevalence over time. However, prevention is reliant upon a change in risk taking behaviours. A background analysis of the local programme suggested that many young people screened repeatedly, did not report condom use and had multiple partners. There was a gap in the literature as to how and why young people used the service and the context of their risk taking. Therefore, I hoped to understand this from the perspective of the young people themselves. I conducted initial literature reviews for Chlamydia screening and epidemiology and also for risk taking.

I choose grounded theory in the belief that this would inform public health practice and that theory would be grounded and discovered in the data generated from interviews with young people. Through a series of observational visits to screening venues themes began to emerge such as the use of literature and incentives, which I used to inform my

interview questions. Grounded theory provided a systematic framework for data collection and analysis and enabled me to identify five core categories which became my conceptual framework. I introduced new theories into the analysis chapters as data emerged in order to explain phenomena, and also to represent my research journey. At interviews four and five it became evident that I needed to probe and understand the emerging phenomena such as the concept of knowing rather than to only create a theoretical representation of the core categories. Therefore at this stage, in order to explore the emerging phenomena using the lived experience of the interviewee's I moved to a phenomenological methodology. I chose the Husserlian approach which relies upon the description of experiences by the subjects themselves which I have represented in the text of this thesis using quotes that were transcribed verbatim. As I explored the core phenomena I was able to identify key findings that are summarised in the final chapter.

As I discussed the research findings with academic peers I was introduced to the relatively new theory of edgework. This believes that there are two main components to risk taking which are the value in the experience itself and the importance to the individual of being in control. These two concepts were evident throughout the core phenomena and demonstrated in the value of alcohol and sexual risk taking and in the need to maintain behaviour control by mitigating risk, the concept of knowing and methods of communication. Therefore, I introduced this theory at the end of this thesis to reflect upon findings in the context of edgework and also to represent my chronological journey of learning.

The philosophical assumptions that underpin qualitative research are embedded in this thesis. This has the ontological assumption that research is subjective with multiple realities as seen by the subject; it has demonstrated the epistemological belief that there should be minimal distance between the researcher and the researchee through the observational visits and interviews; I was aware of the axiological perspective in that I had my own values and as such this research will have an element of bias although I attempted to bracket this using a second researcher for the analysis of data and offered interview transcripts to the interviewees; I have embraced the rhetorical nature of this document using qualitative words such as understanding and validation, and used the personal voice of subjects through direct quotes; finally the methodological process of this research has been inductive and has studied the topic within its context with an emerging design which has been expressed through the narrative.

### ***Methodology: the research approach***

Research methods were chosen for this study that would enable an examination of social practice and an understanding of the context in which behaviour takes place. Starks and Trinidad (2007) state that these qualities are intrinsic to 'qualitative research'. Parahoo (1997) describes qualitative research simply as an understanding of the world that the research participant lives in.

Grounded theory was originally intended to be used in this research in order to generate the gap in theory regarding the risk taking behaviours of young people who use the Chlamydia screening programme. This methodology was developed by Glaser and Strauss in 1967 (Glaser and Strauss, 1967) and has its roots in sociology. The approach is based in a philosophical belief that theory can be discovered by examining concepts that are grounded in the data from participants who have experienced the process. Starks and Trinidad (2007) explain that it is the interaction with others in social processes that shape the meaning that comes from them.

This research has used the systematic approach advocated by Strauss in order to collate and analyse the data. This structured process of analysing data has been criticised for its reductionist approach – reducing phenomena to that which can be observed (Barker et al., 2008). Parahoo (1997) describes this as empiricism – only that which can be observed by the human senses are facts. However, Mills et al (2006) argue that grounded theory has the ability to be responsive to the situation by continually searching for evidence to confirm or disconfirm emerging theory. It is driven by the data as opposed to approaches such as phenomenology which gather all data before being themed and analysed (Piantanida et al., 2002).

As this research progressed to the interview stage the conceptual framework was developed from five core categories: knowledge and communication; the screening process; the theory of knowing; alcohol and behaviour; risk and sexual behaviour. By interview four and five (a couple who were seen together), it became clear that I needed to understand emerging phenomena such as why individuals considered they knew a potential partner, from the lived experience of the individual. Therefore phenomenology was an appropriate method to understand these experiences from the perspectives of

the young people. describes as studying the context in which phenomena takes place, and the thinking processes underlying it.

A constructivist approach was adopted, although Mills and Bonner (2006) warn that this can be criticised for its lack of objectivity. Glaser (2002) explains this to be caused by the mutuality between researcher and interviewee, where the interviewee not only tells what is going on but also tells the researcher how to view it. This can be described as an epistemological bias or a bias in the ways of establishing what is real.

As a public health specialist who has worked in sexual health since 1992, I felt that this research had the potential to challenge my self-understanding by bringing my tacit knowledge to light, recognising any taken-for-granted assumptions, and examining any preconceptions and misconceptions (Piantanida et al., 2002). This would be supported using an interpretive epistemology, relying upon tacit knowledge which is often derived from intuition or an educated guess (Piantanida et al., 2002). This is described as being heuristic, rather than predictive.

### ***Data collection***

Data collection methods used in this study included statistical data to provide background information on the use of the Chlamydia screening programme in County Durham and Darlington in terms of the demography of service users and the local prevalence statistics. Observations of attendances at screening events were used to identify behaviours associated with the experience. One to one semi-structured interviews with service users were also used to provide data from which theory could be generated. The aim of this study was to generate theory that would provide an understanding of the risk taking behaviours of young people and the factors that influence them.

I was assisted in the review of the Chlamydia screening programme data by Umeah Ahmad, a public health trainee. The sexual health data was stored on the main server held by NHS County Durham informatics department. This database holds medical and sexual history information including age; gender; sexuality; ethnicity; test date; test result; the number of sexual partners in the last three months; more than two partners in the last 12 months; Chlamydia test in the last 12 months; condom use last sex; gender of partners in last three months; sex abroad in last three months; any symptoms;

previous sexually transmitted infection in last 12 months; and reason for test. Data was extracted from test request forms using the Chlamydia screening software system (Blithe Lillie) in accordance with the information governance policy of the organisation. The system is unique to the programme and is retrieved using 'Crystal' reporting software. This was approved by the information governance lead from the research governance department at the primary care trust. This process was necessary in order to safeguard patient information and comply with local policy and the national Data Protection Act from the Office of Public Sector Information (1998). Research support was also required for the local research ethics approval.

A total of 20,537 data forms were collated. Data were stratified by age (15 - 24 years) which is aligned to the national programme and excluded the prison population and individuals with learning disabilities and only included residents from County Durham and Darlington. The data provided background to this study and was discussed in chapter two.

Following the data analysis from the self completed test request forms and before commencing research interviews I undertook a series of observational visits to a range of Chlamydia screening sites across the county. In this role I became a complete observer and observations were unstructured, in that I did not pre-conceive what was to be observed. This approach limited any influence that my presence may have on individuals and enabled categories to emerge from the data collected in an inductive nature with the reflexivity that a structured approach would not support (Parahoo, 1997).

My first visit was to a young peoples' sexual health clinic delivered by nurses in a general practice in the south-east of the county (OV1). This was a two and a half hour session in July 2009, between 4 - 6.30 pm. My second visit was to a pop concert screening event in central Durham (OV2). This was a two hour visit also in July 2009, 5.30 - 7.30 pm with the screening office staff. My third visit was to a contraception and sexual health service delivered by medical and nursing community services (formerly the 'family planning' service) (OV3). This was a two and a half hour session in August 2009, 5.30 - 8 pm. My fourth visit was to a secondary school drop-in service in the north of the county (OV4). This was a three hour visit in November 2009, 3 - 6 pm after school had closed and was staffed by youth workers. My fifth visit was with the Chlamydia programme staff in the north of the county, at a town centre screening event on the last Friday before Christmas 2009 (six days before Christmas), locally known as 'black eye

Friday' due to the drunken rowdiness (OV5). This was a four hour session 4 – 6 pm in freezing temperatures outside.

I captured field notes throughout these visits which I later reflected upon. These gave me what Corbin and Strauss (2008) refer to as 'theoretical ideas' that I later used to inform the questions for the research interviews (Appendix A). This included the knowledge of Chlamydia prior to the screening experience; what made interviewees decide to screen, whether they considered themselves to be at risk and if this had changed following screening; whether alcohol increased their risk taking and if they used condoms; how they were tested and received their result; and whether the service could be improved.

Qualitative interviews using mainly open questions (24 out of 29 interview schedule one) were used with service users which has been found to be an acceptable method of data collection (Barriball and While, 1994). Closed questions such as 'what was your test result' and 'do you usually use condoms' were used and then probed further. Bell (1999) believes that data collection, such as interviewing, reveals experiences which are described by the participant whilst also allowing the interviewer to probe responses for clarity. I was aware of the potential bias that can occur during interviews, such as researchers with strong opinions or interviewees eager to answer which are described by Bell (1999). Creswell (2007) advises researchers to anticipate the challenges in interviewing, therefore I was careful to be sensitive to this potential bias during the interview processes and the possible differences between interviewees. I used semi-structured questionnaires with mainly open questions. This method provided me with flexibility to phrase and order questions according to the interviewee and also enabled probing of responses. This was a useful tool for providing clarity and ensuring that responses were not led by the question. For example some interviewees (F 2, 5, 19, 20, 21 and 23; M 4 and 17) stated that they screened for Chlamydia to obtain incentives such as free pants but when probed they revealed that they used group screening and incentives to alleviate embarrassment by providing an acceptable distraction to the screening process. Parahoo (1997) believes that this approach provides validity to the data collected. Although semi-structured questionnaires were used, questions were used to guide the interview rather than constrain it, and I was guided by interviewee responses. Parahoo (1997) refers to this as 'focussed interviews'.

### ***Sample, sample size and recruitment***

Due to the inductive nature of this research the volume of data could have quickly become overwhelming. However, it was important to achieve saturation. Purposive sampling for interviews was used to ensure deliberate recruitment of participants according to the needs of the study, this was also opportunistic as young people presented themselves and agreed to interview (Piantanida et al., 2002). Creswell (2007) states that the researcher selects individuals and sites that can inform the research problem and central phenomenon in the study. Trochim (2006) warns that this type of sampling can create an overweight of the subgroups in the specified population that are readily accessible. However, this was necessary in order to ensure that subjects had experienced screening and had used the service within the previous year in order to preserve memory recall of events (Hart, 1998).

Participants were representative of the population studied and were identified according to age: 15 - 24 years (the national programme range). Initially it was anticipated that a sample size of 20 - 30 persons for interview would be used. This is recommended by Creswell (2007) in order to develop a well saturated theory. However, saturation of data was thought to have been reached by interview 17. Interviewing continued to 25 participants to ensure that saturation had indeed been reached (Borgatti, 2008). Corbin and Strauss (2008) describe saturation as not only when no new data is found but also when no new categories emerge. The demographic details of interviewees are included in table 2:

**Table 2: Demographic details of interviewees**

<b>Interview</b>	<b>Gender</b>	<b>Employment status</b>	<b>Age in years</b>
1	F	Employed (E)	25 (1)
2	F	College Student (CS)	18 (8)
3	M	CS	18
4	M	CS	18
5	F	CS	18
6	M	E	20 (2)
7	F	E	18
8	M	E (apprentice)	17 (7)
9	F	School (S)	16 (1)
10	M	E	19 (3)
11	M	E	17
12	F	CS	18
13	F	Unemployed (UE mother)	17
14	M	UE	19
15	F	UE	18
16	F	CS	19
17	M	Uni Student (US)	21 (1)
18	M	US	20
19	F	CS	17
20	F	CS	17
21	F	CS	17
22	F	CS	17
23	F	S	15 (1)
24	M	CS	18
25	F	UE (mother)	24 (1)
<b>Totals</b>	<b>15 F 10 M</b>	<b>6E; 11CS; 2US; 2S; 4UE (inc 2 mothers)</b>	

Quota sampling has been described by Trochim (2006) as a subcategory of purposive sampling and was an option as the data emerged to recruit participants according to the emergent theory e.g. by screening provider. Corbin and Strauss (2008) refer to this as

theoretical sampling. This method was also used as the data unfolded to recruit two interviewees from the local university to the study.

In addition to opportunistic participants, interviewees were selected from the Chlamydia screening data base and contacted via their preferred method (as stated on testing form) by the programme health adviser. They were invited to interview and offered written information regarding the nature of the study in advance (Appendix B). At the interview this information was explained again and a consent form signed (Appendix C). The right to withdraw at any time was explained as well as the process for the storage and use of data.

### ***Data analysis***

As I wanted the theory to be derived from the data (inductive), I intended to combine initial theory and data, and use this analysis to inform my subsequent data collection and thus enable the expansion of individual explanations of phenomenon, providing density and saturation to the data. I aimed to generate theory on the different factors that affect the behaviours of young people and make recommendations for public health practice. However, as the interviews progressed and the data emerged my focus became directed to understanding risk taking behaviour and the mind-sets of young people rather than to informing practice.

Interviews were recorded and transcribed verbatim prior to analysis. All interviewees were offered transcripts. Only six agreed to check these and give comments either by email or mobile. None responded, one was followed up and stated that she (F 1) was happy with the transcript and therefore did not feel the need to comment.

Interview data was analysed through a systematic coding process described by Starks and Brown Trinidad (2007) and Barriball and While (1994). Line by line coding was used to describe the interviewees' account. Open coding was then used to identify, name, categorise and describe the phenomena found in the text. Analysis of the data by category was then presented as a memo and each memo was labelled with a concept – an interpretation of what is said. Axial coding was used to relate codes (categories and properties) to each other and then selective coding identified the core categories related to the other categories.

An example of this coding is demonstrated in Table 3:

**Table 3: Example of coding process from interview (FI's. 19 and 20 p. 4-5)**

<b>Researcher</b>	And then, so positive test, negative test and then you have had a positive test again now, I am just thinking in terms of protecting yourself, from your first positive test, to your second negative one, to this positive one again, in that time have you thought 'I might start using condoms?' Has it made you think about protecting yourself from your first test?
<b>Interviewee (s)</b>	(A) It has but then you go and have sex with your partner and you don't... (B) You don't think about it do you? (A) And they say 'Oh I don't like using condoms' and you feel crap saying I want to in case you have got something. He will say 'so you think I have got something' and you will end up falling out. So it's best just to leave it, do you know what I mean?
<b>Line by line coding</b>	Recalling intention to reduce risk which changes when with a partner Doesn't think about safety when with a partner Recalling not feeling able to insist on bf using a condoms in case he thinks she has an infection and they fall out. Feeling it's easier to not use condoms that trying to negotiate use with a bf
<b>Open coding</b>	Intention to be safe gone when with bf Feeling that reducing risk is out of her control
<b>Memo two: Risk taking</b>	Although they were shocked at their first pos result this did not change their risk taking. Both report not being able to use condoms because of what others and bfs think and feel that the boys should carry them if they want to have sex. 'And they say 'Oh I don't like using condoms' and you feel crap saying I want to in case you have got something' 'I tend to think if he wants it he should provide it'.

The process of coding, processing and integrating information from interviews enabled further revision and integration of data (Mills et al., 2006). However Barbour (2001) warns of reducing qualitative research to over-prescriptive technical procedures which can result in the "tail wagging the dog".

The software 'Envivo' was available for data analysis. Due to my inexperience in this software programme, it was not used for the textual and content analysis. Ribbens and Edwards (1998) warn that the general lack of training on computer data analysis, could potentially affect the validity of the research claims.

### ***Location of the study***

The observations of service providers and service users, and the interviews with service users were conducted at current Chlamydia screening sites. Interviews and transcripts were coded with a unique Chlamydia screening identifying number. All data were stored in the central screening office in a locked cabinet (separate to client notes) accessible only to myself as the principle researcher, and in accordance with the Data Protection Act (Office of Public Sector Information, 1998).

Interview transcripts were analysed by myself and a second researcher, in this case the research governance lead at the PCT. A PCT laptop was used for remote working and all data stored on the PCT central server accessible remotely using a virtual private network.

### ***Ethics***

I applied using the online process to the NHS National Research Ethics Service for approval to conduct this study. Permission was awarded in 2008 by the National Research Ethics Service Committee North East – Newcastle and North Tyneside 1, reference number 08/H0906/46.

The application outlined the age group for the interviewees as 15–25 years, which was compatible with the national screening programme age group. There is an issue about when a young person might be competent to make their own decisions, which was also clarified in the application. When agencies talk about the assessment they make as to whether a young person can be provided with confidential sexual health services without parental consent they use the 'Fraser Guidelines' (House of Lords, 1985). This is now the legal position in England and Wales. The guidelines state that before providing a service to under 16 year olds to which parents have not given consent, the staff member should ensure that the young person understands the advice being given and that they cannot be convinced to involve parents/carers or allow the medical practitioner to do so on their behalf. It must be considered likely that the young person will begin or continue having intercourse with or without treatment/contraception and that without treatment/contraception their physical or mental health (or both) is likely to suffer. The young person's best interests must require contraceptive advice, treatment or supplies to be given without parental consent.

Although there are very few individuals (<1%) who access the Chlamydia screening programme with learning disabilities this cohort of young people were excluded for ethical reasons. Interviewees who had previously accessed the service had already been assessed by a health professional as to their ability to consent to screening and a consent form signed and kept in the client notes.

Ethnicity of interviewees was available in the Chlamydia screening records. Ethnic groups and non-English speaking individuals were not excluded from the study. Although confidentiality was assured, the sensitive nature of the study did deter some potential participants. The PCT provided a translator if required and acceptable to the individual. This was not required. It was acknowledged that as a researcher I had an ethical responsibility to handle interviews with sensitivity without causing emotional pain or distress (Piantanida et al., 2002). As a health professional employed by the PCT I had a right to offer referral for individuals if required e.g. for counselling. This was offered to two participants who had disclosed that they had been sexually assaulted. It was also made explicit to respondents at the start of the interview that any disclosure of abuse to a child could not be kept in confidence under the Children's Act (Department for Education and Department for Education and Skills, 2005).

Referral for counselling was available from a range of services including the university counselling service, through GUM services, from the psychosexual counselling based in Darlington and through the sexual assault centre based in Durham.

### ***Conclusion***

When considering the approaches to this study an ethnographic methodology was rejected as the sensitivities of this study would not support either overt or covert observation of interviewees (Bruce, 2007). Given the disease trend and the population size affected the limitation of a single case study analysis was also excluded (Bruce, 2007). Action research was also excluded as this tends to be problem focussed and aimed at practice development with data 'forced' rather than 'emergent' (Bruce, 2007). The intention was to generate theory about risk taking behaviour of this cohort of young people that would inform public health practice.

This chapter has described the planned research approach and methods used in this study. However upon reflection the exact principles of grounded theory were not applied due to time constraints and the availability of interviewees.

Interviews were conducted as participants were identified, resulting sometimes in batching of data to be analysed. Grounded theory has its roots in sociology and as such was intended to provide a framework that would explain behaviour although this would have required new observations made in each interview to be used to explore subsequent interviews. The process of analysing interviews individually and using the emergent data to inform future interviews was not always applied. In this respect the interviews took a phenomenological approach, although my research was broadly in line with a grounded theory approach.

Therefore, it can be argued that a mixture of grounded theory and phenomenology were used. Smith (2008) explains that the phenomenological approach studies the subjective experience of the individual from their own perspective. This tends to use a social or psychological theoretical framework in order to understand attitudes, values and beliefs of service users such as the cultural norms associated with alcohol and casual sex.

Both of these approaches are considered by Cresswell (2007) to have a social constructivist world view. This view is found in phenomenological studies where respondents describe their experience and in grounded theory where theory is grounded in the perspectives of individuals. These adopt an interpretivist philosophy. This attempts to explore and understand the behaviour of clients, through the process that Parahoo (1997) describes as studying the context in which it takes place, and the thinking processes underlying it.

It can also be argued that the principles of a case study approach was used with an in depth description and analysis of multiple cases drawing from psychology and medicine and using multiple methods of data collection. In this case observation (screening venues), interviews and documents (test request forms).

Thus upon reflection, I conclude that for good pragmatic rigour, a 'mixed methods qualitative approach' was taken. Qualitative approaches value the views of the individual whilst attempting to understand the world in which they live (Parahoo, 1997). Cresswell (2007) explains that the qualitative researcher will collect data in a natural

setting and use an inductive analysis to establish patterns and themes. Corbin and Strauss (2008) describe this analysis as: *“a process of examining and interpreting data in order to elicit meaning, gain understanding, and develop empirical knowledge”* (Corbin and Strauss, 2008, p.1).

The following chapters will examine each of the categories identified from the interview analysis in detail.

## **Chapter Six: Research categories**

*“Who questions much, shall learn much, and retain much”*

*(Francis Bacon, 1561-1626)*

### ***Introduction***

As noted, earlier observations of behaviour were made at a young peoples' sexual health clinic (OV1), a pop concert screening event (OV2), a contraception and sexual health service (OV3), a secondary school drop-in service (OV4) and a town centre screening event (OV5).

These observations showed that young people did not voluntarily take or read the sexual health literature which was available in the form of notice boards, leaflets, posters and television screens (OV1, p.2; OV2, p.1 - 2; OV3, p.1; OV4, p.1; OV5, p.1 - 2). Young people appeared to test after sexual risk taking such as via an annual check up or because they had a new sexual partner and also declined future prevention in the form of condoms (OV1, p.2; OV3, p.2 - 3; OV4, p.1). Because the screening events provided minimal one to one interaction this was difficult to ascertain. Young people did not consider themselves to be at risk which was reinforced by a previous negative result, condom use (although as an observer I was unable to identify if this was consistent), and because they had no symptoms (OV1, p.3; OV2, p.2; OV3, p.2 - 3; OV4, p.1). Sexual health services and events tended to be accessed in groups of two or more, which appeared to provide a 'safety in numbers' effect (OV1, p.1; OV2, p.2; OV3, p.10; V4, p.2; OV5, p.1). Incentives appeared to motivate screening although not generally provided by sexual health services and tended to be used at screening events to attract young people, many of whom appear to more interested in the 'gifts' rather than screening (OV2, p.1; OV4, p.2; OV5, p.1). One young girl attempted to hand over a sample of tap water in order to get her free pants. The process of screening was quick and easy and did not involve active health promotion either at screening events or at sexual health services. Limited information such as this was being offered for this age group because it is a common infection with no symptoms (this information was only given in a few interactions) (OV2, p.2; OV3, p.2; OV4, p.1; OV5, p.2). Alcohol appears to play a significant role in the social world of young people which was observed at the screening events both at the music concert where alcohol stands were prolific and crowded with young people and at the town centre event at Christmas where young

people would screen whilst moving between pubs (OV2, p.1; OV5, p.1). At the sexual health services the issue of alcohol consumption was not observed to be discussed with young people although in one (young person clinic) leaflets were available. These observational visits informed the development of my interview questions (Appendix A).

This chapter will outline the main categories that emerged from the Chlamydia screening service user interview data. Participants accessing the local Chlamydia screening programme discussed the service and factors affecting their behaviour in relation to sexual risk taking. Interviewees valued the quick and easy methods of screening and treatments and none suggested any specific service improvements. Some described the programme as quick to access with easy methods of treatment where required:

*“You are getting the details in a quick little snappy little sentence like Asda price, you know it (Chlamydia) is going to get sorted straight away”* (F 22, p.5).

*“You don’t have to panic, some people think if you have got an infection it’s like, oh, big course of medication, if I have got it, it can be all over and done with in a day”* (F 21, p. 6).

The research used face to face interviews with young people who had used the local Chlamydia screening service within the previous 12 months. Twenty five semi-structured interviews were conducted with participants aged between 16 and 25 years.

The research identified five categories, which were:

### **1. Knowledge, awareness and communication**

Most participants had little or no increase in their knowledge of Chlamydia as a result of undergoing the screening process. Most reported either not observing or not using the Chlamydia screening literature available with reasons of embarrassment or lack of interest, although radio advertising appeared to be more popular. Texting was the most popular method to receive their result as it gave control to the individual as to how, when and where they received it.

The local and national Chlamydia awareness campaigns use key messages such as 'Chlamydia is the commonest sexually transmitted infection'; 'one in 10 young people are infected'; 'easy self-taken tests and easily treated'. This information is advertised in order to raise awareness with individuals of their risk of infection and to prompt action through screening. However, some interviewees stated that the words used to raise awareness of Chlamydia were interpreted as it not being a significant health threat, and if they were infected it would be easily dealt with.

*"I didn't know nowt about it (Chlamydia) I just went myself and thought he might have something, I asked for a Chlamydia test, but I didn't know what it was... I don't know (how she knew to ask for chlam test) just people talking about it, just generally talking"* (F 25, p.3). Following three positive Chlamydia tests and four treatments she states that her knowledge is: *"about the same"*.

*"I think it was catchy (radio advert) cos they made it into a song I was laughing at the song and that made me realise what it was"* (M 8, p. 10).

*"If I was somewhere important and she rang me it could have been embarrassing ... you don't have to talk (with text)"* (F 13, p. 13 - 14).

*"And when you sleep with someone now man its nowt, is it though its nothing, my friend slept with one lad and then she'll sleep with someone the next week and they just don't think owt about it, no-one does its just normal"* (F 7, p. 5).

*"I think as well, when you hear about it – it's the most common one, you know, when you use that word 'common' you just think ah well it's not that bad really is it. It's not like thinking oh my God I've caught AIDS, and you think oh my God. You think oh well Chlamydia, yeah everyone said it's the most commonly caught one, well it can't be that bad"* (F 1, p. 6).

## **2. Getting the test**

Participants fell into two categories with regard to accessing Chlamydia screening, they were either screened opportunistically such as a college event or were prompted to test by others including partners, friends and professionals.

Eleven participants stated that they were screened at public events 'because it was there' and they all stated that they screened for the incentives. The most popular Incentives used were underwear – pants with a seasonal theme such as Christmas: "what r u getting 4 Xmas" and World Cup pants. Some reported the incentives to be a disguise to the fact they were testing for a sexually transmitted infection. The remaining participants said that screening was prompted by others, which included routine hospital test, unfaithful partners, partner's positive result, and friends/partners obtaining screening packs.

*"I have had it treated twice...We have had it three times but once we had negative and two positive" ... "I think that was just the main reason - the free knickers and the condoms" (F 19 and F 20, p. 3).*

*"It was just like dead friendly and kinda took away the fact that you were getting tested for an STI. It was just you were doing a test and you were getting something out of it" (M 4, p. 9).*

*"Cos I got told I had it off someone else" (F 7, p. 1) ... "and I just came along (with her)" (M 6, p. 1).*

Most participants stated feelings of shock and anxiety at their positive result, including those who expected their result to be positive and those who had recognised their risky behaviour. Those who had shared their result with others such as family, partners or friends report the reaction of others to be similar to their own.

*"I was devastated actually, yeah... Yeah it was still sort of a shock though when it comes back positive but then I think right now I just need to go and get my treatment and think about next time... Because you wouldn't expect it to happen to you really" (M 24, p. 13).*

### **3. Knowing partners**

Thirteen participants reported having unprotected sex with a new partner or a current partner because they 'knew them'. The confidence of 'knowing' a partner was explained as the length of time with a partner (from two weeks), knowing who partners had previously had sex with, how many sexual relationships they had, and their partners'

appearance. The concept of knowing partners will be explored from a psychological, social and evolutionary perspective.

*“If they look alright then it’s alright innit?”* (F 7, p. 6).

*“I’ve only ever had unprotected sex like twice, so like I know the two people”* (M 10, p. 2).

#### **4. Sex and alcohol**

Although most participants stated that they had no experience of peer pressure most were identified as demonstrating herd behaviour. The social scene of drinking and having casual sex appeared to be a cultural norm, with most participants reporting this to be normalised behaviour within their peer groups. Most participants demonstrated a link in their behaviour of having regretful or unplanned sex when drunk (including lethal alcohol consumption). One interviewee referred to this as ‘getting the beer goggles on’, where there is an increased tendency to have sex with feelings of increased confidence and loss of inhibitions when drunk.

The majority of participants described lethal drinking patterns which appeared to be a cultural norm. There was an emergent pattern of drinking at home whilst getting ready to go out, sometimes as much as a bottle of vodka followed by a range of drinks, usually lager or cider, followed by spirits or bottles, ending in shots of spirits. Many reported drinking as much as they can with the money they had with them. The two university students identified the cheap alcohol on sale at the student bar as a facilitator to drinking large amounts.

Most participants identified a similar age to onset of drinking and onset of first sexual intercourse (mostly aged 16 years and under), with the exception of the two university students who reported first sex at age 18 and 19. Underage drinkers tended to access alcohol through older friends who would buy it at the local shop.

*“I’m a different person when I’m sober to when I’m drunk”* (F 1, p. 7).

*“You just go out as I say you get your beer goggles on, and pull anyone as much as you can it escalates from there”* (M 9, p. 3).

*“I am just an alcoholic ... if I was going drinking down the town a bottle of vodka, a full one (before going out) and then pints, vodka, shots, anything I have lost count by that time ... whatever I want I just get ... I am just greedy” (F 21, p. 11).*

## **5. Risk and behaviour**

A number of behavioural issues were identified with regard to sexual risk taking from which two sub-categories emerged:

Offsetting the risk: Although 15 participants were aware of their risks of infection and pregnancy with regard to unprotected sex, they stated that they would offset the risk of infection by having regular Chlamydia screening and treatment, if required, although this intended behaviour was not sustained by all. Some thought it (getting infected) would never happen to them or being infected was considered to be ‘a one off’. In some cases this was reaffirmed by their negative result.

Intention to change behaviour: Participants stated that they would change their behaviour in the future and protect themselves, but inhibiting factors such as being drunk or not having a condom were given as reasons for this intention not to be sustained. Seven participants discussed inhibiting factors to behaviour change with regard to using condoms, including reliance on partner to supply/use a condom, not wanting to use a condom, too embarrassed to negotiate condom use with partner, not needing to use a condom as infection is ‘easily treated’.

One participant who was infected and had two unwanted pregnancies reported only using a condom 20% of the times he had sex, usually due to being drunk. Thirteen participants had previous tests some had three, four or more tests, and 11 participants diagnosed Chlamydia positive had received a recent negative result.

*“Now I do it (test after sex). For every time for unprotected sex because with X I did it (test), well she got it (postal test) and then I got it and by the time she got her results mine took a while so I already got my treatment before my results came back so and I didn’t get it (test) with Y ... by then I had already slept with somebody else ... but that was just because I was getting too randy sort of thing ... well it hasn’t been a regular occurrence (one night stands) at the moment to be honest, the past four people who I have been sleeping with has been unprotected... Three now (tests taken), no, wait, two*

*actually not three. Damn, two out of four, I should have had three but I didn't, Well I'm starting to now though"* (M 24, p. 19).

***In summary***

These five emergent categories will be discussed in more detail in the succeeding chapters, which will be summarised as 'the core story' prior to the final conclusion and recommendations.

## **Chapter Seven: Transfer of knowledge and methods of communication**

*“By three methods we may learn wisdom: first, by reflection, which is noblest; second, by imitation, which is easiest; and third by experience, which is the bitterest”*

*(Confucius, 680-740 BC)*

### ***Introduction***

The first category identified in this study was concerned with knowledge, awareness and communication. This research found that knowledge and awareness of Chlamydia did not change as a result of chlamydia screening or health promotion activities, and this did not have a major influence on preventative behaviour. This is discordant with national policy and the government criticism that local delivery should be more concerned with behaviour change through education. Most (21 out of 25) interviewees reported either not observing or not using the Chlamydia screening literature available with reasons of embarrassment or lack of interest, although radio advertising appeared to be more popular with some individuals (M,24 p.15; M8, p.1; F2, p. 8; M10, p. 23). Texting was the most popular method of receiving results as it gave an increased perception of control.

The messages given to young people regarding Chlamydia were also found to be interpreted differently to that intended, with some individuals believing that their risk of infection was small: ‘the one in 10’ message (number of young people infected) meaning that they would probably be one of the ‘nine in 10’ that were not infected. This finding is unique to the screening programme and needs to be considered by national strategy and local delivery. Chlamydia screening programmes also state that tests are easy, self-taken and that infection is easily treated. This information is advertised in order to raise awareness with individuals of their risk of infection and to promote screening activity. However, some interviewees stated that the words used to raise awareness of Chlamydia were interpreted as it not being a significant health threat and if they were infected it would be easily dealt with.

Feelings of shock were common in those who received a positive result even when this was expected. Similar reactions were reported from significant others with whom results were confided. Most interviewees did not suggest any changes or improvements to the

programme and valued the control that the programme provided with easy screening, access to treatments and methods of communication.

Discourse analysis and communication theory were used in this chapter to explain emerging data.

***Knowledge and awareness***

The NCSP states that it aims to ensure that young people are aware of Chlamydia, the consequences of untreated infection and how to detect, treat and prevent infection (National Chlamydia Screening Programme, 2011c). There is considerable international empirical evidence to suggest that targeted Chlamydia screening is cost-effective. This is measured in anticipated reductions in rates of morbidity, for example a reduction in rates of pelvic inflammatory disease (PID), ectopic pregnancies, epididymo-orchitis and infertility (Health Protection Agency, 2009a). In 2006 the Health Protection Agency estimated that a screening rate of 26% - 43% should have a ‘substantial reduction’ in the prevalence of Chlamydia (Health Protection Agency, 2006). There have been national and local multi-media marketing campaigns aimed to raise awareness of the consequences of Chlamydia infection. Local screening rates have exceeded the national targets in 2009 - 2010 (25%) and 2010-11 (35%). However, despite high volume screening between 2007 and 2011 there was no reduction in the rates of women admitted to local hospitals with a primary or secondary diagnosis of PID, orchitis, infertility or ectopic pregnancy (table 4):

**Table 4: Number of admissions to County Durham and Darlington NHS Foundation Trust by year and primary or secondary diagnosis**

Condition	Diagnoses by year			
	2007-08	2008-09	2009-10	2010-11
Pelvic inflammatory disease	41	46	51	47
Ectopic pregnancy	44	50	48	40
Orchitis	125	110	132	133
Infertility	349	265	336	382

The oral evidence for the report to national Comptroller and Auditor General on the NCSP provided the following dialogue (House of Commons Committee of Public Accounts, 2010) (table 5). Value for money is a key criticism of the national programme

although the recommendation that the provision of leaflets and advice alone will encourage safer sex and prevent infection in young people must be considered naive:

**Table 5: House of Commons Committee of Public Accounts meeting**

**Witnesses:** **Sir Hugh Taylor CB**, Permanent Secretary, **Angela Browning MP**, **Professor David Harper CBE**, Director General, Health Improvement and Protection and Chief Scientist, **Dr Ruth Hussey OBE**, Regional Director of Public Health/Senior Medical Director for NHS North West and DH North West, Department of Health and **Mr Justin McCracken**, Chief Executive, Health Protection Agency, gave evidence.

**Q14 Angela Browning:** ...those who take a Chlamydia test are not receiving any advice about safer sex or the prevention of infection. Surely, in terms of value for money and this being a service which is going to do some long-term good, to miss out on that opportunity cannot be excused, even if you are only seeing a small percentage of people?

**Sir Hugh Taylor:** Clearly one of the absolutely vital elements of this programme is to use opportunistic testing in the community precisely to do this thing.

**Q15 Angela Browning:** So why was it not done?

**Sir Hugh Taylor:** It has been done. What the NAO Report is referring to there is a survey which they carried out which says that 40% of young people that they surveyed who had received the programme said they could not recall that they had received such advice. I am not saying that is not an important finding; it is an important finding. It is one of concern to us. However, in some instances they will have been doing this following contact through letter, through the internet, a various number of ways. There is a compulsory leaflet which gives such advice, which should be available every time a test is carried out. That does not necessarily mean that young people in this age group mark, learn and inwardly digest the material they are given or even sometimes the messages they are given when they get this information face to face. I am not trying to diminish the finding. It is a finding based on a survey of what is a pretty tricky customer group.

**Q16 Angela Browning:** You do not think the cause for that might actually be that this was a poorly resourced programme in terms of its ambitions and that the main priority was to tick boxes to get numbers and that adjunct of giving the advice on sexual health and making sure that was proper advice on contraception and people not reoccurring in terms of the infection was regarded as secondary. In other words were the people who were carrying out the tests actually resourced enough to be properly trained to do that second part of their contact with the patient?

**Sir Hugh Taylor:** I think that would be a gross slur on the many GPs, community health nurses and practitioners who are doing this on a day-by-day basis and using the opportunity of the routine work they do. Nearly 50% of the Chlamydia tests which have been done on this programme are being done as part of core services delivered by GPs in what used to be called family planning clinics and now community health services, in pharmacies. In those areas I am confident that people are getting this advice. I am also confident that leaflets giving people advice on safer sex and the prevention of infection are being given. I cannot say in every single instance that that happens; how could I from where I sit? I readily accept that this does not always impact on the young people to whom we are administering the programme. It is clearly an area we want to follow up following the Report.

The NCSP advises local programmes that effective communication strategies can change individual behaviour by increasing knowledge and awareness; influencing perceptions, beliefs, and attitudes; prompting people to screen; show individuals the benefit of screening as well as promoting safer sex (National Chlamydia Screening Programme, 2011d). This approach is found in the cognitive and personality domains of psychological theories and seeks to influence the behaviour control and the perception of control that the individual has of their behaviour. This assumes that by increasing the control perception behaviour is more likely to be modified. However, this does not account for the 'what's in it for me' element of behaviour. The humanistic belief that 'making the most of oneself', such as by raising self-esteem and self-worth, may be evidence of the value that risk taking has for young people.

Following their research (unpublished) with the Department of Health in 2008, the NCSP exclaimed: "Good news! Among our target audience awareness of Chlamydia as a problem is high and awareness that you can get a test for Chlamydia is also high" (National Chlamydia Screening Programme, 2011a). This purports an assumption that this awareness will lead to behaviour modification.

Despite this exclamation and the advice for local success described above, most interviewees (21 out of 25) in this study stated that they had no or limited increase in knowledge following Chlamydia screening. This is supported by the finding of Greaves et al (2009) who used a self-completed questionnaire with 400 university students. They found a limited knowledge of Chlamydia screening, infection and the NCSP. They also found that higher knowledge levels did not correspond to reduced risk taking which was also a finding of this study (chapter seven).

The cognitive domain has many levels from the easier recognition and recall of knowledge to the more advanced evaluation and decision making. This approach is based upon the principle that learning occurs through exposure to logically presented information (Reece and Walker, 1994). However, as I found at my observational visits young people tended not to use health promotion literature when it was available and there was very little sexual health promotion by screening staff.

*"Nothing really... It's all very quick and easy but that's what I want" (F 7, p. 7).*

One of the research findings that was unique to the programme was that although information resources were widely available, most interviewees stated that they had little or no increase in knowledge of Chlamydia as a result of screening, which is a contradiction to the educational approach to improving health (Ewles and Simnett, 1999):

*“No, well I know how common it is” (M 11, p. 1).*

*“Well I knew it was an infection” (M 6 p.7).*

According to Cooke and Sheran (2004) ‘direct experience’ (e.g. a positive Chlamydia result) is more likely to create stable cognitions (e.g. intention to reduce risk taking) leading to behaviour change. Behavioural psychology has been criticised by humanist psychologists for its reductionist approach to behaviour and instead focus on the needs of the individual that lead to ‘self actualisation’ (Reece and Walker, 1994). The following interviewees demonstrated that even after the ‘direct experience’ of multiple positive tests there did not appear to be any value in changing risk taking behaviour or increasing knowledge. This suggested that there must be some value in the risk taking itself:

*“I didn’t know nowt about it, I just went myself and thought he might have something, I asked for a Chlamydia test, but I didn’t know what it was... about the same (knowledge following screening)” (F 25, p. 3) (three positive results and four treatments).*

*“Isn’t it like, one in three people have got it?” (F 21, p. 5) ...” I didn’t know that” (F 22, p. 5) (two tests each with a positive result).*

Only two interviewees reported an increase in knowledge, although when probed they were only able to demonstrate this by stating how common the infection is:

*“Yeah (increase in knowledge” (F 9, p. 9)...”How common it is” (M 8, p. 9).*

Fairclough (2005) states that the analysis of discourse is an unavoidable method when studying a service or organisation. The process of deconstruction can be used to explore the meaning of words used to promote this service. The key messages and words constructed by the NCSP in order to promote the service include words such as

*'common infection', 'easily treated' and 'easy to test'*. Fulcher (2005) believes that language is a social and cultural thing and as such our sense of reality is socially and culturally constructed. 'Social learning theory' combines behaviourism and personality to give components such as expectancy and psychological situation that predict behaviour (Rotter, 2010b). This means that these messages may hold different meanings for different people. The fact that Chlamydia is easily detected and treated gave the impression that it is not an important health issue. This is another finding that is unique to this screening programme and was demonstrated in the following interviews:

*"People think because they can get rid of it easily (F 19, p. 19).*

*"They're not bothered if they get it because it is easy to treat" (F 20, p. 19).*

*"It's the most common one, you know, when you use that word 'common' you just think ah well it's not that bad really is it" (F 1, p. 6).*

The House of Commons state that Chlamydia screening providers should use an educational approach to health improvement and aim to change behaviour through the care pathway. However, this approach does not appear to be valued by the young people themselves and would disempower the attributes that they do value such as simple testing and easy treatments with limited professional contact. The following statement highlights this issue:

*"Unless young people are provided with advice on safer sex and how to prevent infection when they are tested, any reductions in the level of Chlamydia infection will only be sustained through continued high levels of testing and treatment, which may not be cost-effective"*

(House of Commons, 2010, pp. 11)

This statement appears to be in conflict with the marketing of the programme that promotes quick and easy testing. The screening processes that underpin the national programme and that are valued by young people are the focus of political criticism. To emphasise education as a solution to rising rates of infection demonstrates a complete lack of political understanding to the needs of young people.

## **Marketing and communication**

In 2010 the government had the second biggest spend on advertising campaigns, with costs of £253 million (BBC, 2010a). The Department of Health, Department for Education and NCSP host a website which supports the national advertising campaigns 'sex worth talking about' and 'contraception worth talking about' (NHS Choices, 2011b). This is part of a revised marketing and communications strategy for teenage pregnancy and sexual health (Department of Health and Department for Children Schools and Families, 2009). It has a vision for using communication to provide the platform for an 'open, honest and respectful culture', in which a range of sexual health messages are communicated to young people, underpinned by three complementary objectives. These suggest that communications can help prevent teenage pregnancies and poor sexual health by promoting the attitudes, knowledge and communications skills that make safer sexual practices more likely. They also aim to protect individuals from the consequences of risky sexual behaviour by encouraging protective behaviours (such as screening, carrying condoms and effective contraception methods), using marketing to provide intensive support for the most vulnerable groups, and using interventions designed around their specific service and communications needs. However, most interviewees discussed not using available information, suggesting that a far more complex strategy is required in order to create a cultural shift in thinking and behaviour. Although the following interviewee used the Chlamydia literature for a college report she could not relay the key messages:

*"Yes, and it's got little speech bubbles and tells you little things (tv advert)... I've walked past them and read them but I haven't really stopped to read them (posters) off the wall ... just walked past and read what I could (embarrassed) ... I wouldn't just consciously go and do it (look at leaflets and posters) but I had to do it because of my work at college" (F 12, p. 2 - 3).*

Naidoo and Wills (2000), believe that communication of information and advice is essential to health promotion strategies, whether this be mass media such as television advertising or individually. Leaflets, posters and websites are considered to be effective methods of health promotion and are offered for local support by the NCSP (Naidoo and Wills, 2000, Ewles and Simnett, 1999, National Chlamydia Screening Programme, 2010b). Communication was defined by Rogers (1983) as a process in which the

participants share information between themselves in order to achieve a mutual understanding. Communication and marketing are used as tools to promote health.

Rogers and Shoemaker (1971) would regard this new strategy as an innovation. 'Communication of innovations theory' describes ways in which populations or communities change their customary practices and potential adopters pass through a series of changes where the knowledge about the existence of the innovation occurs. Friere (1973) describes the process where individuals are supported to break free from false consciousness as 'critical consciousness raising'. This in turn provides a deep understanding of the circumstances, which can 'empower' individuals to take action. However, this approach creates a paradoxical situation which assumes that the individual has been disempowered in the first place and screening is empowering them to be healthy rather than they have chosen not to take what is considered to be the healthy choice. This in itself may be considered disempowering.

The local Chlamydia screening programme distribute posters and leaflets to most GP surgeries and youth centres, as well as drink mats to pubs and clubs, in schools, colleges and universities. Ideas considered to be innovative such as USB sticks, viral videos, school information books are also used to advertise Chlamydia and the screening programme. However, the following interviewees found it too embarrassing to read the available leaflets and posters, whilst television and radio adverts appear to be more acceptable. Perhaps this is because the method of communication is more covert and not viewed as at the will of the individual - similar to screening for incentives rather than for infection (see chapter eight).

*"Yeah, I've seen it everywhere (posters), everywhere you go like schools, colleges, just general, like the doctors they are everywhere...I've heard a couple of radio ones but it doesn't really catch you as much... I think displaying it more might make you think ah yeah there's a Chlamydia advert and that would be it. It's not like give me a read or anything like that... I think it's just society it's like it's still embarrassing if you know what I mean I think that's what it is" (M 24, p. 15).*

*"If it was out in the public I wouldn't go and read it but I would have a slight look if it was big if it said most of what it did in big writing then I would" (F 23, p. 1).*

Although there appears to be a wealth of information available to young people they appear to be satisfied with basic knowledge that meets their needs. There appears to be a 'saturation effect' similar to that experienced by a researcher when they are no longer hearing or seeing new information. Humanists may argue that the basic information is sufficient to meet the individuals' need for physical wellness, whereas behavioural psychologists may argue that it is the attitude of the individual that will influence their behaviour. For example, 'I have enough information to meet my needs' or 'they will think I have an infection if I pick up that leaflet'.

Acceptability of information may be contextual - what is unacceptable in a college may be more acceptable and less embarrassing in a contraception clinic. Social psychology advocates that the thoughts, feelings and behaviours are being influenced by the actual or perceived presence of others (Gross, 2005). The following interviewee described the acceptability of Chlamydia leaflets but only in the safety of a sexual health department:

*"No (seen Chlamydia leaflets or posters)...No, never, sometimes I go in with me mam (GP) and I wouldn't like embarrass myself to go and pick one up...when I came in (Chlamydia office) with me mate cos he had to get his tablets I was looking at the leaflets and that now" (M 3, p. 13).*

Radio and television advertising appears to be more acceptable and effective as the individual becomes passively engaged rather than actively seeking information. Therefore, the act of receiving information becomes acceptable and the method used, such as comedy, appears to deflect potential embarrassment:

*"I thought it (Chlamydia) was bad cos it just sounds bad, it makes you infertile that stuck out for me...radio (heard about Chlamydia)... that Chlamydia song I think it was catchy cos they made it into a song I was laughing at the song and that made me realise what it was" (M 8, p. 1).*

*"It does grab your attention (radio jingles) cos like the way that they talk and the noises that they make you're like aah I'll listen in. It's the same as the drugs advert as well you're like attracted to it and you listen to it. I think it is good...especially when you're young and you're out in your car do you know what I mean. Like it probably will it'll sink in. So it's good" (F 2, p. 8).*

*“It’s a bunch of lads chatting (radio ad) init like ooah I was offered the Chlamydia test - did you take it – no, no they’re not sticking things in me or something – and he goes oh its easy you pee in a pot - so I remembered it’... it is not ‘boring’ (comedy) I think more people remember things that are funny than things that are serious and boring to be honest. When I was at school I didn’t listen in history cos its boring but science it was a laugh” (M 10, p. 23).*

*“Just like because you are listening to music and just happen to listen to it” (F 15, p. 14).*

### **Communication of results**

Ofcom report that in 2009 the UK was the seventh-largest international telecoms market at £27 billion revenue from mobile services exceeded those from both fixed line and broadband utilities (Ofcom, 2010). This signifies an important shift in European Union communications from the late 1990s when the number of mobile phones overtook the number of land-line telephones. (Cawley and Hynes, 2010).

An evaluation of the acceptability of short message service (SMS) marketing has shown that 44% of respondents found this very or fairly acceptable and young people tended to have more favourable views than older people. Interest and relevance were found to be the factors most likely to influence acceptability of advertising (Rettie et al., 2005). This is supported by the following interviewees:

*“You can get them in the easiest way for you by phone by text” (F 1, p. 9).*

*“It’s good cos its more personal to yourself, say like I live at home and I’d got a letter through the post –cos it must say something on the front, and then your mam’s like oh what’s this” (M 10, p. 6).*

*“Because it is easier and if you need to talk to someone you can” (M 17, p. 3).*

The NCSP identified text messaging as an innovative and effective method of communicating Chlamydia results in their annual report 2003-2004 (National Chlamydia Screening Programme, 2004). Studies have demonstrated that text messaging is an acceptable method of communication particularly for young people and this is now used in health care (Haller et al., 2006, Gerber et al., 2009). This may reinforce an ‘internal

locus of control' for the individual, although this is not necessarily a predictor of behaviour. As Ajzen (1991) explains being in control (receiving test result) does not mean that the individual will perceive their behaviour (changing sexual risk taking) to be within their control. Ten interviewees described their preference for text results and explained this as ease, being in control and ensuring privacy, which is described in the following accounts:

*"In case someone opens your letter or something... just in case you are with people (phone)" (F 15, p. 10).*

*"My days are very disruptive, I can never really answer the phone all the time, I am much easier to contact by text. And I don't trust the postal service; I don't particularly want a letter that says I have Chlamydia floating around a post office somewhere" (M 18, p. 7).*

*"If I was somewhere important and she rang me it could have been embarrassing ... you don't have to talk" (F 13, p. 13).*

Three interviewees with a positive result said that they preferred a mobile call and explained that this gave them the opportunity to talk to a professional:

*"Sarah phoned me and told me, she was lovely. She was really, really nice, and I started to cry and she says there's nothing to worry about, she says that's what we're there for she says we're here to help" (F 2, p. 8).*

*"I think it is private and confidential it's better to get a phone call because you are always on the phone all the time, because the post could get lost or anything like that, so when she phoned I thought it was better when she phoned me and told me it was positive I think it was better than send a text because I wouldn't know what to do". (F 23, p. 9 - 10).*

Only one interviewee requested his result by post and email, and was not worried about confidentiality as he had a good relationship with his parents whom he could discuss sexual health matters with. Although Kenny (2010 p. 5) describes good parental (or trusted adult) relationships as a protective factor against risk taking behaviours (alcohol and sexual risk taking) this does not appear to have prevented risk taking behaviour:

*“I’m not really bothered because my parents know about my sex life sort of thing, well they don’t know everything but I tell them” (M 24, p. 14).*

### ***Value of service and requested improvement***

Only one person seemed interested in receiving more information on Chlamydia screening (F 22, p. 20).

### ***Conclusion***

From their unpublished research discussed in this chapter the NCSP reviewed the motivation, experience and issues among screening providers and co-ordinators and identified four needs for which they developed support materials. These needs included greater contact and support from the CSO, training and delivery support, to identify a non-clinical Chlamydia screening champion and to provide national and specific communications. This chapter has found that young people appeared to value the Chlamydia screening programme as a method of detection and treatment, rather than as a medium for health promotion and behaviour change. Therefore, the intention of the NCSP to support local programmes with leaflets, posters and information cards in an effort to create health seeking behaviours and long term improvements in health outcomes is aspirational.

Kolb’s (2011) model of adult learning which includes concrete experience, reflection, abstract conceptualisation and active experimentation may provide some explanation to risky behaviour. The second stage ‘reflection’ is based upon what the experience means to the individual. The reflection of personal risk by interviewees in this study is discussed in chapter 11. This describes how screening is used by most of the individuals to offset their risk, for which many display an overly optimistic view of themselves or optimism bias. This then negates the need to change behaviour patterns and risk taking activities.

Bruner stresses the role of language and interpersonal communication and the need for active involvement by ‘expert adults’ or ‘peers’ in order that individuals are taught to analyse problems and think for themselves (Gross, 2005). However, the messages promoted by the NCSP such as ‘common infection’, ‘one in 10 young people’ and ‘easily treated’ were reported by some interviewees to have an opposite effect to that intended.

That is to say that messages were interpreted as infection not being 'common' as nine out of 10 people were not infected, and the fact that the infection was easily detected and treated reduced the importance of the disease. These need to be addressed by the national programme.

Most young people stated that they were happy with the Chlamydia screening programme and could not suggest any improvements to be made. Although it may be argued that they may not know what they have not experienced many had attended other sexual health services such as contraception clinics or a GUM service. Information discussed throughout this and previous chapters suggests that young people value the quick and easy screening methods, a basic knowledge of the service and the easy communication routes by text and mobile phone. The value that young people have for screening needs to be acknowledged and the perceived benefits that their risk taking behaviours provide need to be understood for any health intervention to be effective.

The House of Commons Committee of Public Accounts (2010) has stated that the NCSP has failed to demonstrate the cost-effectiveness of the programme after six years of delivery. However, there is still no clear definition on when and by how much Chlamydia prevalence should be reduced. In their conclusions and recommendations for achieving a cost effect programme they add, that although the NCSP instructs health workers to advise young people on safer sex when they are screened, not all of those tested say they are receiving such advice. They advise that the national programme should renew guidance to local programmes to remind them of the importance of providing advice alongside testing. However, as this chapter has discussed there is little or no difference in knowledge following screening experience despite the availability of health promoting resources. Therefore, the 'House of Commons Accounts' recommendations to ensure value for money by changing behaviour through professional interaction and education demonstrates a lack of awareness in the values of young people. The 'quick and easy' service model that is valued by the young people does not readily support delivery of one to one health interventions, nor does this appear to be something that interviewees would want. This is supported in chapters eight and 11 which revealed how young people access Chlamydia screening repeatedly to offset their perceived risks removing the need to change their behaviour patterns.

This chapter has revealed why young people have experienced little or no change in knowledge as a result of screening, advice or marketing and are unlikely to make or

sustain a change in their risk taking behaviours. The desire to increase knowledge of Chlamydia was not evident in this study, suggesting that this approach was not relevant to young people and did not influence behaviour. Furthermore, there appeared to be a saturation effect from the current media and education approaches whereby young people were not receptive to the information used. The value of the screening programme by service users is in the easy access, treatments and methods of communication that are 'controlled by' the individual rather than 'done to' them. These are the very elements that the House of Commons have indicated should be more controlled by service providers in an attempt to change behaviour that is valued by government and policy.

## **Chapter Eight: The screening process: 'What r u getting 4 Xmas?'**

### ***Introduction***

This chapter used a range of theories to explore the factors that influence the behaviours' of young people in a screening programme and highlights the impact that perceived control has upon behaviour and the reaction of individuals when this is challenged. Using a grounded theory approach has resulted in the addition of further theory to explain data as it emerged. Literature on social constructivism, motivation theory, stereotyping, individuation and de-individuation, and optimism bias were added to this chapter.

The acceptability of Chlamydia screening has been well documented both qualitatively and quantitatively using uptake rates and service user accounts (Department of Health, 2000a, Department of Health, 2000b). However, the national screening target has increased annually from 15% (2007 – 2008) to 35% (2010 – 2011). This has led local programmes to incentivise screening to the public.

The interviewees in this study fell into two categories with regard to accessing Chlamydia screening. They were either screened at opportunistic events such as in colleges or were prompted to test by others including partners, friends and professionals.

Local programmes rely upon incentives to attract young people to test. In a report for the Department of Health, Hussey (2009) found confusion about the diversity of methods such as i-pod competitions and cash incentives that are used to encourage young people to screen. She recommended that the NCSP develop a standard policy for incentives. In February 2010 the NCSP announced a formal position statement on the use of financial incentives as well as a caution for the use of other incentives, this stated: "the use of financial incentives to encourage young people to take up Chlamydia testing is not recommended" (National Chlamydia Screening Programme, 2010 p. 1).

This chapter will examine the social context and reasoning associated with screening and the reaction of individuals to a positive result.

## **Screening for incentives**

Eleven participants stated that they were screened at public events 'because it was there' and all of those stated that they screened for the incentives. Incentives used included financial (£5 per test for university colleges) and gifts such as underwear – pants with a theme: 'what are you getting 4 Xmas?':

*"There was a man standing and he said come on girls get tested for Chlamydia, let's see what it's like, get your results back any way that you want. And we got a free pair of little knickers! So I just decided to do one and gave a urine sample" (F 2, p.1).*

*"I had it done at the university someone was there offering them so I had one done with my mates, I did it for the incentives (£5/test) arranged for a load of us to get tested" (M 17, p. 1).*

In a systematic review of 47 randomised control trials (RCTs), Kane et al (2004) found that short term financial incentives for patients worked well for simple preventative care, with well-defined goals such as vaccination uptake or screening programmes. Skinner referred to this as 'operant conditioning' where behaviour is evoked in order to receive a reward (Davenport, 1992). The theory of planned behaviour would see this as the subjective norm or the rationalisation to engage in activity undertaken by significant others such as peer groups. Screening incentives were less effective in creating complex behaviour change and there was insufficient evidence to support effective and long-term lifestyle changes. Screening for incentives may be effective in creating the intervention but it does not appear to support any long-term behaviour change, which would require a change to the properties of cognitions discussed in chapter four. The following interviewees demonstrated:

*"I think that was just the main reason - the free knickers and the condoms" (F 19 and 20, p. 3).*

*"We got blue and black ones the first time, but we were over the moon yesterday because we got black and pink ones. I want some of those red and white ones though me, they look nice" (F 21, p.2 - 3).*

Sutherland et al (2008) summarise the evidence on the effectiveness of patient incentives in affecting behaviour change. They believe that public health interventions are either 'upstream' focussing on the wider circumstances that affect behaviour such as social conditions and employment, or 'downstream' such as smoking. It is the downstream interventions that adopt incentives as motivators to participate in health seeking programmes such as screening. They found that financial incentives can bring about one-off changes in behaviour. However, they also found that there was insufficient evidence to support complex behaviour change, although report some evidence for temporary improvements. Sutherland et al (2008) also found that the removal of financial barriers such as transport costs to antenatal/postnatal appointments had a positive impact on attendance.

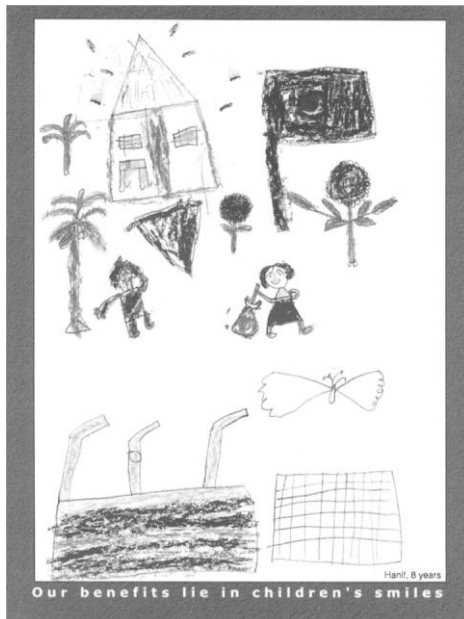
The success of incentives to facilitate the simple goal of Chlamydia screening was supported by the following interviewees who were screened at public events. However, the act of screening did not require any change in the sexual risk taking. The use of incentives appeared to deflect the causal factor of risk taking behaviour providing social acceptability to the screening process which may be crucial to the acceptability of the programme:

*"It was just like dead friendly and kinda took away the fact that you were getting tested for an STI. It was just you were doing a test and you were getting something out of it"* (M 4, p. 9).

*"We didn't think we had (got Chlamydia) but it is a good like I mean using like not really presents but like stuff like that like to get people to do the test"* (F 5, p.2).

Incentives are widely used to solicit a desired response. In a study conducted by Falk (2007) 10,000 solicitation letters for a charitable organisation seeking donations to build schools for street children in Bangladesh were manipulated. One third of the letters included a small gift (a postcard) and one third included a large gift (four postcards). The post cards (Illustration 1) showed coloured paintings drawn by the children. The large gift stated that the postcards were a 'gift from the children of Dhaka'. The remaining third of letters contained no gift. Findings show that there was a response rate of 12% (no gift), which increased to 14% (small gift) and to 21% (large gift).

### Illustration 1: Postcard drawn by the street children of Dhaka



The acceptability of financial incentives was supported in the following account where a student discusses how he had arranged screening events for payments of £5 per test:

*“The first one was when the PCT came to give training for us. The second one I organised through the student club. The third one was for a society of mine (screening for incentives £5 per test)” (M 18, p. 1).*

The findings of Falk (2007), Kane et al (2004) and Sutherland et al (2008) appear to support the effectiveness of incentive schemes. However, financial incentives may also diminish motivators such as self-worth, civic duty and altruism. Titmuss (1970) stated that financial compensation undermines the individuals’ sense of civic duty. He found that financial incentives for blood donations actually led to a decrease in donations; he explains that the incentives caused the ‘crowding out’ of the intrinsic motivation. Humanism would explain this in that the diminishment of altruism reduces the likelihood of achieving self-actualisation.

Frey and Oberholzer-Gee (1997) used social psychology to study the crowding-out of intrinsic motivation. They explain that if an individual receives intrinsic benefits by behaving in an altruistic manner or by upholding their civic duty then paying for this service reduces the indulgence of altruistic feelings. There is a psychological process where the external motivator is perceived by the individual as controlling that causes a

reduction in their internal motivation. It is a competence motive in that we need to be in control of our own destiny; when this freedom is threatened we tend to react by asserting our freedom. In 1966 Brehm cited in Gross (2005) referred to this concept as 'psychological reactance'.

The controlling external motivator (screening for financial reward) and the reduction in altruistic feelings described by Frey and Oberholzer-Gee (1997) can be observed further in the interview of M 18. He describes a controlling screening initiative as 'pushy', which appears to create a sense of altruism in that he aspires to a more holistic service for his peers:

*"I think it is rather... it seems to be very focused on trying to push it....and it seems to be very focused on getting people tested which is effective but I don't know....I think there should be more of a focus on sexual health as a whole and less on come out and get pants and money for your screening and more on this is where you can go to get regular screening, this is where you can go to get checked out. I don't think people go to the GUM clinic as it is too far away. I think there should be a way for students to be tested for everything, not just Chlamydia and more locally in the centre" (M 18, p. 8).*

Alzipar and Martinsson (2011) conducted a natural field experiment to investigate the potential crowding out of gift rewards (colourful maps) for charity donations (on admission to a national park). They found that this was not a suitable motivator for increasing donations and the free map constituted a financial loss to the park. They believe that the motivational crowding out is greater according to the beneficiary, in this case the national park authority as opposed to the street children of Dhaka. High volume screening continues locally with university students as well as other organised groups such as football clubs. The reasons for screening are varied, however it is the individuals (or their chosen beneficiary) that reap the rewards such as sporting equipment, charity donations and international trips.

The local data showed the number of students who were offered personal incentives such as free pants to screen. Between 1<sup>st</sup> October 2009 and 1<sup>st</sup> December 2009, 1,079 screens were performed using pants only as the incentive. However, between 1<sup>st</sup> October 2010 and 1<sup>st</sup> December 2010 this increased to 2,846 screens – of these 2,352 generated a payment of £5 per test to the student colleges. This increase is attributed to the work of the student welfare officers who promoted screening events in order to generate funds, for example to buy rugby strips and oars for the rowing club. Because

the beneficiaries of screening were the student population this may have eliminated the potential crowding out effect of the financial incentives and increased the individual sense of control. In addition, pants were also given to individuals at the time of screening, which may have also stimulated the intrinsic motivator of the individual although the use of incentives contradicts the advice of the national programme.

Skinner's theory of 'operant conditioning' claimed that reinforcements and punishments have the ability to automatically strengthen or weaken behaviour. He believed that frequency of behaviour is determined by its consequences such as reinforcements (Rosenstock et al., 1988). However, Bandura (2010) challenged this with his 'social learning theory' (later renamed as social cognitive theory). This theory explains behaviour as a reciprocal interaction between cognitive, behavioural and environmental influences, rather than a reaction. He believed that reinforcers provide information and act as motivators rather than to merely strengthen a mechanical response. It is those motivators, such as free pants, that are able to influence the decision to screen that have been discussed above, although they do not motivate the individual to prevent the risk in the first instance.

Motivated behaviour is said to be goal driven and purposeful, and is conceptualised according to the persuasion of the psychologist (Gross, 2005). Motivators can be intrinsic and subconscious – the pleasure in the task (psychodynamic psychology); environmental such as that described by Skinner above (behavioural psychology); a hierarchy of motives with self-actualisation at the top such as that depicted by Maslow (humanism); bodily events such as hunger (biopsychology); cognitive, social, cultural and environmental factors also play a crucial role in the motivation of the individual (Gross, 2005).

Screening in groups of more than one person is commonplace. Jungian psychology believes that 'individuation' is the process whereby the personal and collective unconscious is brought into consciousness to be assimilated into the whole personality of the individual (Jung, 2010). The process of de-individuation can create collective behaviours. Diener et al (1976) conducted a naturalistic study on the effect of 'de-individuation' as a result of being part of a group. They studied Halloween trick-or-treaters (children) to assess the effects of three 'de-individuation' variables on stealing. They observed over 1,300 children who were given the opportunity to steal sweets and money. The variables were: anonymity and non-anonymity; individuals and groups;

groups with a child responsible for the group actions and those without. The highest rates of stealing occurred amongst anonymous children in groups with altered responsibility.

Gergen (1973) also describes how decision making tends to be riskier in groups rather than as an individual. Gross (2005) explains that the anonymity afforded by groups can lower inhibitions and create feelings of less accountability for individual behaviour. Gergen (1986) explains that people join groups to enhance their freedom and it is the size, strength of influence and immediacy of the group that affects the individual to conform – this is known as ‘social impact theory’. In this case screening in groups appeared to provide the individual with a sense of group acceptability and de-individuation that was said to reduce embarrassment:

*“Yeah if there were not as many people doing them then I don’t think I would have, I think it needs to be like I don’t know, a private environment to go and do it, if there were none of these festivals on then I would go and do it there if it was out in the open but if there is hardly anyone going and doing it then I wouldn’t because I am a very embarrassing person, I get embarrassed easily” (F 23, p. 3).*

Maslow’s hierarchy of human needs describes this in the humanist domain as a basic psychological need for love and belongingness where the individual receives acceptance as part of a group (Abraham-Maslow.com, 2011). Particularly for adolescents, friendship groups help them to cope with school, family, peers and physical growth (Maslow, 1943). This may explain why the following interviewee felt able to screen as part of a larger group:

*“They do it in the middle of the corridor and everyone can see, and they give you your tube and you have got to run back and you have got wee in a bottle... I think that’s what it is (acceptable because lots of people are doing it) because it is in the middle of the corridor, they have got boxers and shorts on and there are other people there (F 19 and 20, p. 16) ... “Everybody is doing it” (F 19 and F 20, p. 16).*

It is notable at this point to appreciate the gender differences that may be experienced by interviewees where pubertal maturation tends to be a positive experience for boys and a negative and often embarrassing experience for girls. This may explain why the girls interviewed above discussed their embarrassment during screening, as this is

reflective of their sexual maturity. Whilst boys tend to move towards their ideal physical self, girls move away from their ideal image as they experience weight gain, increased body fat and move towards menarche (Alsaker, 1992). Simmons and Blythe cited in Gross (2005) refer to this as the 'cultural ideal hypothesis' and forms part of the developmental psychology of the adolescents 'right of passage' to adulthood.

Screening as part of a group is described as 'social facilitation' where behaviour is facilitated by the mere presence of others. Some interviewees went on to explain that the incentives disguised the fact that they were testing for a sexually transmitted infection, which relieved their embarrassment and facilitated them in completing the test.

*"Yeah because I have always wanted to go (to get a test) but I have never dared and at it was at that festival and most people were doing it so I thought I wouldn't be embarrassed as much... loads of campaigners forwarding the gear loads of people were crowding around so I just thought I would go and do it... they were advertising the boxer short things as well" (F 23, p. 2).*

Embarrassment has been cited as a major barrier to young people accessing sexual health services (Department of Health, 2007, Samangaya, 2007, Lester and Allan, 2006, National Chlamydia Screening Programme, 2010b). According to social constructivism emotions such as embarrassment are produced by cultures that influence the beliefs, values and social environments of the individual (Berger, 2005). There is an argument that social rules will determine the emotion to be felt e.g. sexual arousal for a member of the opposite sex may be labelled as sexual attraction whereas for a member of the same sex may be labelled as friendship (Davenport, 1992). This is called 'socialisation' and is the way that we learn to behave and think – norms and values - which other people think are appropriate (Davenport, 1992). This may explain why Chlamydia screening as part of a group can alleviate embarrassment, in that it is accepted by peers that it is a desire for gifts rather than an acknowledgement of personal risk or possible infection.

Norlin et al (2003) discuss personality theory and the belief of Freud that personality had three components that he labelled as the id, the ego and the superego. He believed that the id was the unconscious part of the personality concerned with survival instincts of sexual urges and aggression. The ego arises from the id due to socialisation and can think, learn, reason and adjust behaviours. The superego is likened to ones' conscience

and can chastise the ego for doing wrong. It is the reasoned action of the ego that may be expressed in the following interviews, where screening for incentives is used to alleviate the embarrassment of the individual and to conceal the fact that they may have a sexually transmitted infection.

*“He was just like all you need to do is wee into this bottle, get some boxers, get some condoms. It was just like dead friendly and kinda took away the fact that you were getting tested for an STI. It was just you were doing a test and you were getting something out of it” (M 4, p. 9).*

*“We went as a group...(when asked about incentives)... that hides the facts for you” (F 21, p. 2 - 3).*

The following interviewee discusses how she screens regularly at college events for the incentives that have a different theme each time, for example different designs of pants for Christmas or Halloween. This themed and periodic incentivised screening may have created what Cooke and Sheeran (2004) refer to as ‘temporal stability’ – where cognitions (to screen) remain constant over time (see chapter four). The offer of free pants with themes that differ at each event has enabled screening to become a regular and culturally acceptable activity.

*“Like for a group, you think oh we will all go and get free pants but if you didn’t get the pants it would make it more personal and things. You wouldn’t want to do things like that (without the incentive) you feel stupid, sort of thing...It’s like a cover up, you’re not embarrassed by it – it’s just the knickers you are going for... Yes, it’s more for a group thing as well, we sit in a class of 20 and everyone is like, they are there today, we will go and get the free knickers, Oh they are black and pink ones today, it’s just really what attracts us” (F 22, p. 2-3).*

### **Screening prompted by others**

Fourteen participants said the act of screening was prompted by others which included routine hospital test, unfaithful partners, partner’s positive result, and friends/partners obtaining screening packs.

The 'theory of planned behaviour' discussed in chapter four was developed by Ajzen (1991) and can be used to predict behaviour and to plan behaviour changing interventions. This is based upon the belief that behaviour can be determined through 'intention' and 'perceived behaviour control'. Intention has three variables: attitude, subjective norm and perceived behavioural control. This can be used to predict single actions such as use of the screening programme.

The subjective norm is concerned with social pressure to conform and given the control offered by the screening programme may explain why individuals felt they should screen based on information given from significant others. However, this does not mean that there was a change in attitude or intention to reduce or change the risk taking behaviours that created the need to screen:

*"I was with the girls and they were like, I'm going to do one in case, because most of them are in long term relationships – and want to see if he's been cheating and all this and I said well I'll do one" (F 2, p. 2).*

*"Cos some people I'd been with, just thought that they might... I thought I'd be alright" (F 9, p. 1-2).*

Cooke and Sheeran (2004) identify seven properties of cognitions which they consider to be reliable moderators of cognition-intention and/or cognition-behaviour. 'Direct experience' is one of these moderators which require the actual experience of behaviour as opposed to indirect experience such as reading about it. This concept believes that direct experience is more likely to produce stable cognitions and create more consistent cognition-behaviours. Although the following interviewee was screened as a result of an infected partner this was not a predictor that she would adjust her risky taking behaviour in the future, which will be discussed in chapter 11:

*"Cos I got told I had it off someone else" (F 7, p. 1) ... "and I just came along (with her)" (M 6, p. 1).*

Having a previous infection from an unfaithful partner can provide the direct experience prompting the individual to screen. Where behaviour is adjusted according to a negative outcome, this is known as 'learning from mistakes' (Christensen and Mikkelsen, 2008). Social psychologists describe this as 'the inference model' where inference increases

our ability to predict the outcome of behaviour. The cognitive process of inference is derived from a previous experience and will influence future behaviour (Bandura, 2010). There may be a sense of personal competence in accessing the Chlamydia screening programme. White (1959) developed 'drive' theory with a concept called 'competence' - that is the capacity to interact effectively with the environment. He believed that in order to sustain motivation towards a particular behaviour we need to confirm our sense of personal competence. It is intrinsically satisfying to feel we are capable human beings who are able to control our world.

Another property of cognition is '*involvement*'. The belief is that individuals will become involved if issues are personally relevant to them, and the more involved the individual becomes the greater the attitude-intention. Direct experience and involvement can both be identified in the following interviews. Interviewees demonstrate the repeated involvement with screening over time as they are aware of the distinct possibility of infection due to the infidelity of their long-term partners, although the awareness of risk does not appear to prompt a need to alter behaviour:

*"I just knew that someone had it and I went for it and that was it, yeah, well she had it actually and I just didn't catch it (1<sup>st</sup> test) ... This time was exactly the same, I knew she had it off her boyfriend but one drunken night it happened and I never used a condom so I knew I probably had it so I went to go and check myself out just in case and she had got treatment already herself (2<sup>nd</sup> test)" (M 24, p. 2 - 3).*

*"I just went to Wheatley hill clinic (3<sup>rd</sup> test) ...he (long-term boyfriend) just goes with too many people... just gone to get checked out" (F 25, p. 1 - 2).*

*"Just because the person I was seeing slept with somebody and apparently she had it (reason for first test) ... Because he cheated on me again with four of them (reason for second test)", (F 15, p. 2).*

Within the theory of planned behaviour the 'perceived control' should be enhanced by the availability of the screening programme and opportunistic offer of screening by test initiators, this can be observed in the interviews discussed above where control was enabled through public screening events. Control can be observed in the following interviews where it is enabled by a health professional and through postal screening initiated by a girlfriend:

*"I was offered it in obs and gynae (abortion clinic)" (F 1, p. 1).*

*"I've had the envelope in the house for ages I just never got round to doing it. We were both going to do it but she (Girlfriend- F 9) did it" (M 8, p. 2).*

As discussed the theory of planned behaviour requires an attitude to facilitate intention to act. Attitude can be positive or negative. The positive attitude such as 'screening can identify infection' and negative attitude in terms of 'the health consequences of infection' can be observed in the following interviews:

*"Because I heard it can stop you from having children" (F 16, p. 1).*

*"I said no at first, and she was like, 'it's worth it, it doesn't matter, it's not important if you have got it' and all this, so I just did it anyway. I didn't think I had it so I thought it was pointless, because I was pregnant with him" (F 13, p. 2 - 3).*

### **Shocking news**

Most participants stated feelings of shock and anxiety at their positive result, including those who expected their result to be positive and those who had recognised their risky behaviour. Those who had shared their result with others such as family, partners or friends report the reaction of others to be similar to their own.

Risk perception is explained by personality and cognitive psychology as how individuals perceive, remember, think, speak and solve problems. It is argued that people will tend to consider risks that are voluntary as less serious and the more common risks as less disastrous (Lupton and Tulloch, 2002). Denscombe (2001) studied the alcohol use and cigarette smoking of young people and found that even those with an awareness of health risks would go ahead and do it anyway. The belief that 'it will never happen to me' is described by Sjoberg et al (2004) as an '*overly optimistic view of oneself*' when it comes to personal risk. The developmental psychologist, 'Piaget' calls this egocentrism, whereby due to the perceived attention from others, the developing adolescent considers themselves to be unique and therefore impervious to risk (Arnett, 1992). Joffe (2003) believes that we have a tendency towards 'overconfidence' regarding ones' own judgments of risk and that there is an 'optimistic bias' which is involved in the faultiness of human information processing.

Optimism bias has been found to occur in relation to personal risk as well as for positive events such as long life (Weinstein, 1989). Weinstein (1987) also found that biases can occur when individuals compare themselves to an incorrect norm. In this case it has been advocated nationally that one in 10 young people have Chlamydia. Optimistic bias may encourage the individual to compare themselves with the nine in 10 who do not have infection. One proposed explanation is that optimistic biases are simply cognitive errors, for example if marketing campaigns create a typical high risk stereotype then the individual may use this as a benchmark and conclude that they are below average risk (Christensen and Mikkelsen, 2008). Arnett (1992) explains this through developmental psychology as a product of egocentrism that he called 'personal fable' – a story told to oneself that is not true. This may explain why individuals expect their test result to be negative.

The 'Health Belief Model' was developed by Rosenstock in 1966 and is a health behaviour change and psychological model (Rosenstock et al., 1988). This has four constructs including the perceived susceptibility to risk; perceived severity of the condition; perceived barriers to adoptive behaviour; and the perceived benefits of adoptive behaviour. If young people consider their susceptibility to Chlamydia to be unlikely (nine in 10 chance not infected), that the infection is not severe as it is easily detected and treated, and that behaviour change would mean not adopting the behaviours within their peer group, it is unlikely that they will consider changing their behaviour.

Clarke et al (2000) applied the principles of optimism bias to the health belief model in a study of women's beliefs about breast cancer and the benefits of mammography and men's beliefs about prostate cancer and the screening test (PSA). Unrealistic optimism was assessed in individuals using mean score ratings for self and for others. The women showed unrealistic optimism bias to their risk of getting breast cancer, to their five year survival with breast cancer and the curability of their condition. The men showed unrealistic bias to all of the beliefs of the health action model including perceived risk, age at onset, survival, and barriers and benefits of PSA testing. They conclude that the existence of unrealistic optimism bias was confirmed, which frequently occurs in relation to the perceived risk of negative health outcomes which can be observed in the following interviews:

*"I was devastated actually, yeah... Yeah it was still sort of a shock though when it comes back positive but then I think right now I just need to go and get my treatment and think about next time... Because you wouldn't expect it to happen to you really" (M 24, p. 13).*

*"Gutted, I felt horrible because, like, I haven't been with loads of people and like you imagine people who sleep about and that" (F 12, p. 12).*

Most interviewees with a positive result described their feelings of shock and disbelief - even those who were aware of their risk. The perception and control of their personal situation was challenged causing the discomfort that Brehm cited in Gross (2005) describe as psychological reactance. Piaget would describe this as being 'decentred' where the young person takes on the perspective of another (Davenport, 1992):

*"Shocked, very" (F 1, p. 2).*

*"Broke down in tears. First time I've had it. I was distraught" (F 2, p. 3).*

*"Disgusted...shocked and I was angry at him" (F 25, p. 4 - 5).*

*"Gutted... I just felt dirty like people are like - 'you have got a disease" (F 19, p. 20).*

*"Gutted... You think 'disease' and it's not something to be proud of..I actually felt ashamed of myself that I would actually get Chlamydia" (F 20, p. 20).*

*"Like crap (F 22). She was crying (F 21). I was proper upset. It felt minging, trampy and disgusting, like you're a little slut, like you sleep about to get it (F 22). I was over the moon, wasn't I? I was like - I don't have it! and she started crying so I was like, it's alright, everybody gets it, I will get it one day - curse myself... It was one person (F 21). Just like I felt really down - down and upset. I was really pale all day (F 22). And you were saying to me I feel disgusting, like a little scruff weren't you? (F 21). (F 21 and F 22, p. 16-17).*

Only one interviewee stated that she was not bothered by her positive result. This may be because she knew it was within her control to treat her infection. Her reaction may be

a result of the 'Hawthorne Effect', where subjects modify their reactions simply because they are being studied (Weber, 2002):

*"I wasn't bothered because I knew you could treat it" (F 16, p. 7).*

### **Reaction of others**

The reaction of others, such as family members and friends, was found to be very similar to that of the interviewees and may simply be a deviation in what psychologists refer to as stereotyping with over-generalised ideas about people (Bandura, 2010). This is used as a short-cut to forming impressions generally about groups but may be applied to individuals. The deviance from this may cause shock as experienced in the following interviews:

*"I was terrified (positive result) I found out the day before yesterday and I was like ...at first she said, everything came out like you're a nob, you're an fucking arsehole, why didn't you put something on the end of your nob, blah blah and then I just went away and just.... she calmed down – ish" (M 10, p. 5 - 6).*

*"Yeah my sister and my friend (told of her positive result) ...shocked (friends reaction) and I was angry with him" (F 25, p. 4 - 5).*

### **Conclusion**

Gross (2005) believes that motivation is conceptualised differently by the different psychological disciplines. For example, a psychodynamic psychologist will seek out the unconscious drives and motives such as those described above which may be a motivator for opportunistic screening, whereas the behavioural psychologist will look for environmental 'schedules of reinforcement' that would facilitate screening.

Whether screening is motivated by peer groups or incentives, whether it is initiated by the individual or others, the process appears to provide an element of control for the individual over their social world. However, this perception of control negates the need to change risk taking behaviour. Therefore, we need to be realistic in our political and professional expectations that this health intervention will create behaviour change. The interviewees in this study demonstrated extreme optimism towards their health, which

was reinforced by the ability of the individual to control and manage any risk of infection. Any challenge to this belief, for example with a positive Chlamydia result, was met with shock and often blame for others.

This phenomenon is explained in an ethnographic study of sky divers by Laurendeau (2006). He found that in an adverse event, such as death of a colleague, the individual would rationalise this by blaming the accident on the faulty actions of the deceased, in the belief that they would have been able to mitigate against this. This reinforces the notion that the activity is not dangerous, allowing the individual to continue in the belief that they can control their own risk environments. Failing that the trump card was identified as 'fate' - when your numbers up its up. Either way the individual is allowed to continue their activity without a need to change. As Lyng (Lyng, 2005) explains the perceived control of the individual makes behaviours less threatening and lends itself to young adults who are particularly susceptible to this illusion. One of the findings discussed in this chapter is the overwhelming feelings of shock and anxiety of the individual and significant others when faced with a positive result - even those young people who acknowledge risk, such as partners who are continually unfaithful. Receiving a positive result appears to be a direct challenge to the assumed control of the individual and appears to create discordance with their assumed homeostasis. Whether this phenomenon will have any influence over actual or intended reduction in risk taking and subsequent behaviour will be explored in the following chapters.

The use of incentives appears to be an acceptable and important factor in achieving high volume screening. Whether they enable college purchases or enable screening acceptability the outcome remains consistent in that they facilitate a health intervention, although high volume screening has precipitated screening of easily accessible but low risk individuals (university students) rather than harder to reach at risk individuals. Therefore, care must be taken in the interpretation of prevalence rates of infection within this population.

From the inception of the national programme the positivity rate of the local university student population has remained low at around 6%, whereas the positivity rates of other high risk groups has been up to 25%. Frequent and systematic screening of university students can be offered every two weeks. This has a dilution effect upon positivity rates and has dramatically reduced the rate of the local population from approximately 12% to 6% (20010 - 2011) whereas the local GUM service has retained a stable diagnostic rate

at around 13%. The effects of achieving the target of high volume screening using a large but low risk accessible population can only increase health inequalities for the more vulnerable and harder to reach groups.

In order to improve health outcomes and ensure best value for money the national programme will change the national target from the percentage of the population screened to a diagnostic rate. This would improve public health by providing general population screening whilst addressing health inequalities by targeting those most in need. In his review of health inequalities in England, Sir Michael Marmot refers to this as 'proportionate universalism' (Marmot, 2010). Jackson et al. (2012) support this approach and believe that more intensive services should be delivered in more deprived populations. Whilst this approach would deliver a Chlamydia screening service that was more equitable, it undeniably remains a solution based approach to health. As such this approach will never address the causes of the causes of ill-health. This would require a completely different health framework, such as the asset-based approach discussed in chapter three, where assets such as role models, good parenting and raising aspirations through providing work opportunities enables cultural changes to be made that influence the health decisions of individuals.

## **Chapter Nine: The concept of 'knowing' and its effect on behaviour**

*"Meeting Franklin Roosevelt was like opening your first bottle of champagne; knowing him was like drinking it"*

*(Winston Churchill, 1874-1965)*

### ***Introduction***

Twelve interviewees discussed their experience of having unprotected sex with partners based upon the perception that they 'knew them'. 'Knowing' was reported to be determined by the length of time they were known, information regarding partner's previous sexual behaviour and by their appearance. Skidmore and Hayter (2000) believe that 'knowing' facilitates trust in any relationship and individuals do not consider themselves to be at risk because they know their partners. It is argued that the concept of knowing may be a method of sanitising a potential partner's behaviour (considered by others as risky) rather than a knowledge of that person (Skidmore and Hayter, 2000). This chapter will explore the concept of knowing and how this may affect risk taking behaviour.

Theories such as social cognition, social norms, information processing, the halo effect, parental investment and the primacy effect have been used in this chapter to explain emerging data.

### ***The concept of knowing***

The process where individuals make sense of themselves, other people and social situations is referred to as 'social cognition' (Fiske and Taylor, 1991). People need to make sense of each other in order to guide their own actions and interactions (Fiske, 1993). Stereotyping people such as by their appearance is one method used by perceivers in order to make sense of their social world. Johnson and Tassinari (2007) found that body shape and motion is related to perceived attractiveness and concepts of femininity/masculinity, specifically the hip to waist ratio. Perceivers also use social categories which allow behaviour (e.g. sexual) to be assessed, for example attractive people do not have infection (Fiske, 1993).

This chapter will discuss the often considerable gap between perception and reality. This gap is the focus of social norms work which aims to dispel the myths around what is perceived to be normal behaviour, using an intervention to communicate findings from data collection from the perceivers and their subject audience. Social norms aims to change the way that an individual thinks. This is the combination of behaviourism and personality theory that is used in social learning theory (Rotter, 2010b, Bandura, 2010). Social norms work has been piloted locally (Durham County Council, 2010). The findings have given the opportunity to address specific issues in personal and social education and marketing materials (see illustration below). For example, 44% of year eight pupils thought that year 10 pupils drank alcohol weekly, whereas only 16% of the year 10 pupils actually reported this. In addition 84% of year eight pupils thought that most year 10s were ready to have sex, whereas only 58% of year 10 pupils thought they were ready to have sex. The latter example gave the framework upon which 'delay' training was delivered in school which considers the options of postponing first sexual experience. An example of the local marketing of social norms messages can be seen in illustration 2:

**Illustration 2: Social norms message in Darlington school**



Concepts, statements and explanations generated by the perceiver are identified by Gross (2005) as 'social representations'. Cognitive psychology explains how people perceive. It is this process of labelling that serves to make something unknown into something that is familiar, thereby giving the perceiver a sense of safety and control

over the situation. We are more likely to trust people who are familiar to us and feel more likely to predict their responses which makes us feel more secure (Davenport, 1992). The concept of knowing partners was a theme that emerged from the interviewees in this study and can be observed in the following account:

*“I’ve only ever had unprotected sex like twice, so like I know the two people ... I know the girls I’ve slept with” (M 10, p. 2).*

In a study of 237 men and women, Garcia (2006) found that individuals perceived to have a greater degree of sexual experience (identified as high number of sexual activities and sexual partners) were considered to be less desirable as dating and marriage partners. Skidmore and Hayter (2000) explains this as an aspect of ego-centricity (placing oneself at the centre of social actions) and the projection of ones' own personal qualities onto others. In relation to sexual encounters they believe that if an individual perceives a partner to be like oneself then their own personal attributes are invested in that person. However the lack of objectivity can then fail to identify risks. This projection of personal values can be identified in the following interviews where respondents claimed to have known the people they had sex with because they thought that they shared similar values such as getting tested after risk and who they would have sex with, or stated that they wouldn't have sex with someone who didn't share their values:

*“After I have had sex, unprotected sex with someone who I don’t know or someone who I do know still or when I come to go into a relationship...It’s like I don’t know - you know them, you know who they have slept with and you know them personally you would know them type of people wouldn’t sleep with other types of , it’s hard to get, like they know that they would get treated every single time you would sleep with someone if they got tested they would get tested every single time they slept with someone and if they came back positive then they would get treated straight away that’s the kind of like you know them and personally who they are and what they would do” (M 24, p. 18).*

*“Yeah I wouldn’t trust them, say like I went out and I met a girl who I’d never met before, like, and she was like oh come back to mine I’d be like no, now I’d be like, before X right there was always other lasses that I knew, like I knew them and I was like and they said come back to mine and I was like alright then... If I got to know them then I know what*

*they were like in the past, like say they said oh well I score all the time and sleep with loads of people I'd be like –oh” (M 10, p. 7 - 8).*

Smith et al (2006) state that repeated information about an individual will increase stereotyping of that individual. Our thinking can be channelled in specific directions for example believing that someone does not have a sexually transmitted infection can be affected by information given by the partner or information given by significant others. Lovaglia (2000) refers to this as the ‘priming effect’. The values that individuals hold that may lead to stereotyping can be explained by social psychology and the influence of social patterns and structures, such as the influence of friends and the environment in which they ‘hang out’ (Lindsay, 2003). The priming effect was identified by a number of interviewees and did not require any proof of accuracy:

*“And she’s been tested quite a lot and she doesn’t have it. Like I didn’t see any proof but she has said she didn’t have it and I believe her” (M 4, p. 3).*

*“Just because I’d only had sex with one other person and I knew he didn’t have it because he’d just done a test as well. He said he was ok” (F 5, p. 3).*

*“I don’t know, it depends who it was; or unless you’ve heard something about them” (F 6, p. 6).*

Zawacki et al (2009) studied relationship motivation and found that the fear of jeopardising the relationship may prevent women from negotiating condom use with partners as this could be considered as an indicator of her previous risky behaviour. The immediate benefit outweighs the risk and enables the individual to keep control of the relationship.

*“I stopped using them after about two weeks ... He said you are on the pill and we are only sleeping with each other so just don’t use them” (F 15, p. 8).*

Social relationships are complicated and require the cognitive processing of large amounts of information in order that perceptions can be made. Assessing situations and understanding others points of view requires that we take mental shortcuts. These shortcuts can result in mistakes in how we see other people (Smith et al., 2006). It could also be argued that the processing of this information and subsequent rationale for

action could simply be a justification to undertake the desired behaviour. Faulty decisions are evident in the following account where the interviewee decided she could not get pregnant or get an infection because this was her first partner:

*“He was my first, so couldn’t get pregnant, couldn’t have an infection that’s where it bordered at”* (F 2, p. 5).

### **Appearance**

First impressions count according to Gross (2005) which he refers to as the ‘primacy effect’. He goes on to explain that people pay more attention to information when forming a first impression and pay less attention to any future information acquired. The first impression can be made within five seconds of walking into a room. This concept is evident in the following account:

*“Probably yes (assessing partners), you can tell by looking at them who’s got it”* (M 8 and F 9, p. 9).

In a one second exposure to election candidate photographs, Hansen and Wanke (2009) found that attractiveness, familiarity, baby-facedness and age to be predictors of choice influencing cognitive perception. Gross (2005) refers to this as the ‘halo effect’ which enables us to understand someone based upon very limited information. Asch (1946) explains the doctrine of the ‘halo effect’ in that general impressions of an individual affect the clarity that individual characteristics or traits are considered, and as such are a source of error. It is easier for us to infer social categories than individuation which may explain the reliance on categories in person perception (Uleman et al., 2008).

In a study with two control groups Asch (1946) gave group A and B identical characteristics of a person (intelligent, skilful, industrious, determined, practical, cautious). Group A heard the person referred to as ‘warm’ and concluded that this would be: “a person who believes certain things to be right, wants others to see his point, would be sincere in an argument and would like to see his point won” (Asch 1946, p. 263). Group B heard the person to be referred to as ‘cold’ and considered this would be: “a rather snobbish person who feels that his success and intelligence set him apart from the run of the mill individual. Calculating and unsympathetic” (Asch 1946, p. 263).

The addition of the warm and cold words made the impression of that person very different. Gross (2005) explains that we like to see someone as consistent and therefore as having either all good or all bad qualities which is easier to comprehend. This may explain why if someone looks attractive they are perceived as not having a sexually transmitted infection. This is supported in a number of studies discussed by Feldstein et al (2006) which found that age and physical attractiveness are used by individuals as indicators of HIV sero-status when choosing a sexual partner. Dijker and Koomen (2006) explain this from the perspective of the social psychologist. They believe that perceptions are based on regarding *deviant* (undesirable, for example someone with an illness) individuals in terms of stereotypes and invalid beliefs. For example, fat people are lazy; people with HIV are irresponsible. The following interviewee was impressed by the prostitute he had sex with in Amsterdam because of her good hygiene:

*“Yes, it was 50 euros for a shag, I used a condom she was very clean in fact she gave me deodorant and everything, I was quite impressed” (M 10, p. 2).*

In a study measuring facial proportions of 312 adults Bereczkei et al (2009) found that children shape a mental template of their opposite sex parent which they use in later life to search for their partner. They refer to this as the ‘sexual imprinting hypothesis’. It has also been found that people with similar levels of attractiveness tend to go together (Davenport, 1992).

Being born good looking can have a profound effect on one’s life. It has been found that attractive children are often treated more favourably than less attractive ones by parents, teachers and other children (Gross, 2005). Attractive students are encouraged more by teachers and other students, and attractive criminals (especially females) are less likely to be convicted (Gross, 2005). The Greek historian Herodotus describes the Babylonian women whose duty it was to prostitute themselves at the shrine of Mylitta and mentions those ‘less charming’ may have to wait a number of years before they were chosen by a man (Havelock, 1946). Lovaglia (2000) reports his own experience as a salesman of being ignored by customers in favour of his handsome colleague whom he refers to as the ‘poster boy for corporate America’. Appearance has led respondents to create judgements about their potential sexual partners:

*“If they look alright then it’s alright innit?” (F 7, p. 6).*

*“I think sometimes you look at people and I think you make judgements and think they won’t have it. And I think some people will just go out and have sex and they will have it. So you never know, because if I was someone else I don’t think I would look at me and think she’d have Chlamydia, so it’s surprising I think” (F 12, p. 14).*

The cognitive judgement that someone who is attractive would not have an infection is not uncommon. Individuals considered to be physically attractive also tend to be considered to be socially good – for example successful (Gross, 2005). In a study of 46 adults in a speed dating event, Todd et al (2007) found that men chose women based upon physical attractiveness. The female subjects chose men who met their desirability as a mate such as willingness to provide paternal investment and likelihood to be committed to them. Geary, Vigil and Byrd-Craven (2004) found that culturally successful men are a females’ mating and marriage preference. They explain that the reason for this is clear, culturally successful men produce offspring with lower mortality rates to those of other men. This is attributed to better psychological and physical health. This supports the evolutionary model of human mating based on parental investment theory (Henningsen and Henningsen, 2010). Evolutionary psychology refers to this as the genetic cost-benefit model of reciprocal altruism that presents negative and exclusive responses to deviance (Bereczkei et al., 2009).

### ***Time***

Repeated exposure affects attitude formation and unconscious familiarity. Hansen and Wanke (2009) found that repeated exposure to radio adverts affects an unconscious liking for the names used in the advert. Smith et al (2006) found that frequent exposure to an individual can increase familiarity, liking and trust. Individuals have claimed to know sexual partners after a few hours. The feeling of ‘knowing’ following a time period of being together and often very short, created an impression that they were not a risk which led to unprotected sex:

*“I stopped using them after about two weeks ... He said you are on the pill and we are only sleeping with each other so just don’t use them” (F 15, p. 8).*

*“I’d been with him for three years so I didn’t think he would have it ... I trusted him I didn’t think he would sleep with loads of lasses and not use anything, I just trusted him not to be like that” (F 7, p. 2).*

The cognitive learning domain has many levels and may explain why perceptions can change over time as learning occurs, for example knowledge of a partner's sexual history. First impressions can change over time and affect behaviour (Lovaglia, 2000). This may explain why respondents started using condoms in a new relationship but stopped after a period of time. It is the frequent exposure to an individual over time that appears to increase the feeling of familiarity and associated safeness (Smith et al., 2006). Willis and Todorov in Uleman et al (2008) found that personality traits initially identified can change over time as the perceiver becomes more confident. Fiske and Taylor (1991) explain this as the 'dilution effect'. They describe the primary information received about a person as diagnostic. Additional information (non-diagnostic) received dilutes the diagnostic information provided that the non-diagnostic information is not extreme. They conclude that the dilution effect constitutes a misunderstanding of the relevance of both the diagnostic and non-diagnostic information to the judgement process.

Asch (1946) undertook further studies to the one described above. The effects of the term 'warm' was used in a further two series. Series A used the words: obedient, weak, shallow, unambitious and vain. Series B used more extreme words: vain, shrewd, unscrupulous, shallow and envious. 'Warm' was found to reduce in significance compared to the other characteristics, particularly in series B: *"He was warm only when it worked in with his scheme to get others over to his side. His warmth is not sincere"* (Asch 1946, p. 263).

The conclusion drawn from this is that a quality that is central to one impression may become peripheral in another. This change may occur over time as more characteristics and impressions are formed of that person. In qualitative interviews with female sex workers Sibthorpe in Henson et al (1998) found there was a perception of less risk with regular clients than with casual clients. Male injecting drug users were also found to be more likely to use condoms with casual partners. The reduced perception of risk with regular partners was found in the following interviews:

*"Yeah always if it's someone that I don't know then I do (use condom). If it's someone that I'm seeing then I don't. Like if I don't know them proper well and I haven't been seeing them then I will but if I've been seeing them for a long time then I don't – it makes no sense now I think about it but"* (F 7, p. 6).

*“Well, I did with Craig (use condoms) at first but then like, I don’t know - after about a year or something - everyone just says – I think it is the same for everyone, I think you just stop using them” (F 12, p. 13).*

*“I used to go with someone for nine months and it was occasionally (condom use) ...I’ve known him for ages and it’s really a one off but I have known him for years I used to go to school with him and everything, I don’t know I have been talking to him for ages and we were really close” (F 23, p. 7 - 8).*

### **Conclusion**

The young people in this study were more likely to have sex with someone that they knew. However the rationale for ‘knowing’ a partner was based on assumption rather than factual information.

Individuals appear to construct their social world into something that makes sense to them and creating sense of the social world provides them with a sense of control. This has been demonstrated in the interviews discussed above, although clearly there are perceptions made that are incorrect.

Making judgements about people and situations requires us to process large amounts of information. Therefore we tend to make mental shortcuts to make this faster and easier. Appearance (clean/pretty) and what people say (they have regular STI screening) are described by the interviewees to be linked to preconceived ideas. This has enabled the interviewees in this study to make quick decisions as to whether they feel that they know and are able to trust an individual. The perception bias discussed in this chapter for example, that if a person is attractive they cannot have a sexually transmitted infection, has led to inaccurate calculations of risk and risky behaviour.

First impressions, priming and stereotyping, whether self-developed or based upon information from others including the potential partner, were found to have a significant impact upon decision making and subsequent behaviour. These judgements were also influenced by other information such as that provided by friends and information gathered before meeting an individual which reinforced the belief of knowing.

Whilst the human mind appears to be able to create impressions of others rapidly, that are lasting, these can be challenged and influenced. Social cognition and perception are some of the tools that are used by the individual in order to make judgements about sexual partners. This helps us to make sense of our world, and in creating a sense of knowing and familiarity we feel in control. However, repeated exposure to an individual also increased the feelings of knowing and trust, leading the individuals in this study to consider risks such as sexual transmitted infections to be less likely. This may explain why individuals have made egocentric decisions which were not based on fact and consequently the very nature of these decisions may be mistaken as they are dependent upon information and assumptions being accurate.

Public health interventions should embrace risk taking behaviours of young people as part of normal development and seek to provide protective factors in order to reduce negative outcomes to the individual. For example, social norms theory embraces this discourse by causing the individual to decentre and create an accurate understanding of human behaviour, by making explicit what the majority of people do or how they behave (behavioural norms) in a group.

In order that health promotion interventions are to be successful, innovative interventions that challenge the perceptions of individuals and their peer groups and provide resilience enhancing opportunities within the control of the individual need to be considered. However, understanding behaviour will need to be relevant to young people rather than policyholders and take into account the cultural context in which young people make their decisions. Factors that influence risk taking behaviours will be discussed in the following chapters.

## **Chapter Ten: Alcohol and behaviour - “how does your night end”?**

*“Alcohol removes inhibitions - like that scared little mouse who got drunk and shook his whiskers and shouted: Now bring on that damn cat!”*

*(Eleanor Early, 2011)*

### **Introduction**

This chapter sets out the relationship between sexual risk taking and alcohol consumption within the national and local context of binge drinking, teenage pregnancies and prevalence of sexually transmitted infections.

A clear relationship between alcohol consumption and risky sexual behaviour was identified and the often expected outcome of casual sex when drunk has been explored in the context of increased confidence, self-esteem, social and developmental need. Although most participants stated that they had no experience of peer pressure most were identified as demonstrating herd behaviour. The social scene of drinking and having casual sex appears to be a culture that most reported to be normalised within their peer groups.

Reports of regretful behaviour as well as the influence of cultural and peer norms, age and influence of alcohol at first sex, will be discussed from a psychological, environmental and socio-economic perspective, and in relation to current national and government policy and identified protective factors.

In order to explain emerging data additional theories were used including alcohol myopia, alcohol expectancy, motivation, homeostasis and cognitive dissonance.

### **Alcohol and sexual health**

Responding to the NICE guidance on preventing harmful drinking, Health Secretary Andrew Lansley said:

*“Alcohol misuse and binge drinking blights too many families and communities in Britain today. Over the past decade, alcohol misuse has increased, binge drinking has risen dramatically and alcohol-related hospital admissions have soared. We need an urgent*

*change of direction to tackle this deep rooted problem”*

(Department of Health, 2010a)

The North-West Public Health Observatory studied the contributions of alcohol use to rates of teenage pregnancy and sexually transmitted infections (Cook et al., 2010). They stated that alcohol misuse by young people in the UK is ranked in the top five of 30 countries. A relationship between teenage conceptions and teenage hospital admissions for alcohol harm was also identified. They found that in lower super output areas (a geographical unit with an average population size of 1,500) Chlamydia was the most common adverse sexual health outcome. At middle super output area (geographical population 7,200) teenage conceptions were found to be linearly related to the number of alcohol related hospital admissions. After controlling for population size and deprivation they found that at least one alcohol-attributable female hospital admission would predict one or more births to teenage girls.

Newbury-Birch et al (2009) undertook a systematic review of published reviews on the impact of alcohol use in young people. The final narrative summarised 102 reviews and a large body of evidence was found which reported consistent trends between alcohol use and a range of adverse effects. These included: an increased likelihood of having sex and at a younger age; not using a condom during a young person's first sexual encounter; having unprotected sex; teenage pregnancy and the likelihood of contracting STIs.

### ***Risk and resilience***

Kenny (2010) undertook a literature review as part of a project studying the alcohol use and sexual behaviour of young people. Key findings included that young people were more likely to have risky sex and sex at a younger age when they were under the influence of alcohol and have increased risk of unwanted pregnancy and STIs. Alcohol was used to overcome nervousness, embarrassment and vulnerability relating to sex and sexual activity. However, this also resulted in poor judgements regarding sexual activity and risky sexual behaviours. Drinking alcohol and risky unprotected sex may also be linked to particular personality factors in young people (sensation seeking) and young people who drank were more likely to take other risks and engage in risky sexual behaviours. Young people who engaged in risky behaviours were also likely to have predictive factors such as a low socio-economic group or poor school attendance (Kenny, 2010).

In his literature review, Kenny (2010) also identified protective or resilience factors in relation to alcohol use and risky sexual behaviours. These included: positive emotional wellbeing; high self-esteem and positive body image; positive attitude to health, including sexual health; warm supportive relationships with trusted adults; access to confidential information, advice, support and services; education, training or work; engagement with leisure activities involving positive peer influences; social and emotional literacy and life skills. These resilience factors would align themselves to the discipline of humanism with the view that promoting self-worth and self-esteem will assist an individual to 'make the most of themselves'.

### ***Alcohol and education***

The National Institute for Clinical Excellence (NICE) guidelines on alcohol interventions in schools aims to reduce drinking in under 18s, to delay the age at onset of drinking and reduce harm to those who do drink (National Institute for Clinical Excellence, 2007b). They suggest using education, one to one interventions where needed and a partnership approach to deliver the recommendations. In 2008 the Personal Social and Health Education (PSHE) curricula moved away from a focus on educational content to 'healthy lifestyles'. However, by 2010 government negotiations on the 'Children, Schools and Families Bill' concluded with the removal of clauses to make PSHE education statutory in the national curriculum at primary and secondary level. Programmes of study for PSHE education at key stages three (11 - 14 years) and four (14 - 16 years) remain non-statutory although some aspects of them are already statutory, for example careers study.

Drinkaware (2011) recommends that men should not regularly drink more than three to four units daily (equivalent to a pint and a half of 4% beer) and two to three units daily for women (equivalent to a 175ml glass of 13% wine). They warn that drinking more than this has an array of health risks attached.

*"It doesn't make a difference if you're drinking every day or once a fortnight, exceeding the recommended guidelines is risky, saving up your weekly units so you can drink them all on a Friday night is not the way to interpret the Department of Health's advice."*

(Dr Michael Wilks, Drinkaware)

### ***Alcohol awareness***

From the first person interviewed in this study it was clear that alcohol was a significant factor affecting sexual behaviour. In 2006 the Department of Health and the Home Office launched a joint campaign 'Know Your Limits' aimed to raise awareness of alcohol units and health risks associated with exceeding the limits set out in Government guidelines (Public Health Agency, 2011). This campaign outlined below in illustration 3 continues today:

**Illustration 3: Alcohol 'know your limits campaign'**



Despite the government efforts to raise awareness of the harmful effects of alcohol misuse, when asked about safe drinking limits 10 out of 25 five respondents did not know what this was. This does not necessarily mean that information was not accessible, as this research discussed in chapter seven exposure, to information does not necessarily lead to learning and learning does not necessarily lead to modification of behaviour.

The Public Health white paper 'Healthy Lives, Healthy People' (Department of Health, 2010b) makes health the responsibility of many people and is clear that this includes the individual themselves. What we eat, and drink, and how we exercise is influenced by the environment that we live in.

'The responsibility deal' (Department of Health, 2011b) aims to create the right environment to encourage and empower people to take responsibility for their health and make healthy choices. This has five core commitments, the third being to:

*"Foster a culture of responsible drinking, which will help people to drink within guidelines"*

(Department of Health, 2011b p. 5)

Even those young people who thought that they knew the safe drinking limits were vague and did not specify the meaning of a unit of alcohol. The young man who attended the anger management course continues to consume large quantities of alcohol:

*"About 14 units or something a week" (M 16, p. 6).*

*"About 20 units a week that's what I was told at the hospital" (M 17, p. 2).*

*"2 - 3 units a day, 2 - 3 times a week, I know from the police I had to go to an anger management course and it had drink and sex and that. It was a referral order like I had to go every 2 weeks to this place and they would counsel and talk to you like instead of getting like a conviction. That was for smacking the manager at Wetherspoons over the top of the bar, that was through drink I was mortal" (M 6, p. 4).*

The 'responsibility deal' includes agreement with industry to achieve clear unit labelling on over 80% of alcohol by 2013. In 2009 an independent review found that only 15% of drinks fully met the existing voluntary labelling agreement (Department of Health, 2009b).

All interviewees who claimed to understand safe alcohol consumption described dangerous drinking behaviours, which are described in detail later in this chapter. This suggests that the national approach to behaviour change based upon education and awareness may be aspirational. Fox (2011) believes that alcohol education will have become effective not when young people are frightened of the dangers of drinking but when they are bored by it all. The alcohol network is chaired by Jeremy Beadles (Wine and Spirit Trade Association) and Mark Bellis (Faculty of Public Health), and supported by Paul Burstow (Minister of State for Care Services). In March 2011 many health

partners withdrew from the deal believing pledges to be unrealistic and dictated by the industry (Alcohol Policy UK, 2011).

### ***Alcohol consumption and sexual behaviour***

In 2005 the World Health Organisation conducted a project on alcohol use and sexual risk behaviour in eight different countries (World Health Organisation, 2005). The project included a literature review and an empirical study. The literature revealed key messages including the links between alcohol use, sexual risk taking behaviours and sexually transmitted infections including HIV and AIDS. Media advertising was found to influence early drinking and early sexual activity. The empirical study used a qualitative approach and found that individual concept of risk e.g. unplanned pregnancy or infection significantly correlated with the potential for individual behaviour change. However the findings above suggest that understanding risk alone will not create behaviour change as the following interviewee demonstrates:

*“Well it’s mostly when you’re drunk isn’t it. Like most people have sex when they’re drunk, they all get their bottle a little bit... Well it could be an ongoing thing that you like haven’t planned but like you get talking and all this and you try to have sex with them and when they’re drunk they’ve got more bottle... Not all of them like I’d say about three quarters of them (drunken sex)” (M 3, p. 6 - 7).*

Cooke and Sheeran (2004) believe that feelings (affective) and thoughts (cognitive) need to be consistent in order to produce stable attitudes that are better predictors of behaviour, they refer to this as ‘affective-cognitive consistency’. This was absent in most interviewee accounts:

*“For the one night stands, nine out of 10 (will be drunk)” (M 24, p. 5).*

Ethanol (drinking alcohol) affects areas of the brain which are responsible for thinking and pleasure seeking, as well as the effect of body relaxation. Areas of the brain responsible for planning and motor learning are dulled and individuals can become more animated in their speech and movement (Australian Government, 2009). The cognitive and behavioural domains of psychology believe that increasing the perception of control is more likely to modify behaviour. However, the humanist approach argues that self-esteem and self-worth are more important to the individual. Therefore, the

value that alcohol consumption may provide such as confidence may be more important than the negative health outcomes that are promoted. The pleasure seeking effect of alcohol is described in the following account:

*“You’re more likely to have sex when you are drunk...you think ah wey I’m just gonna get smashed tonight and then you go to like the last nightclub and then obviously you meet someone and you end up having sex with them, not all the time you don’t, but then you wake up in the morning and you think – what happened last night you haven’t got a clue, cos you were that drunk you just totally forget about it. It’s like you’re a different person when you’re drunk...It’s like you’ve got a split personality, when you’re sober you are yourself and normally I’m dead shy when I’m sober but once I’ve had a drink I’m just like a totally different person...it’s like two totally different people” ( F 2, p. 5).*

High-risk sexual behaviour under the influence of alcohol has been found to be common in teenagers (Bonomo et al., 2001). This is supported by the Independent Advisory Group on Sexual Health and HIV (2007) who state that multiple risk taking behaviours in young people has been found to occur rather than risk taking in isolation. Twenty out of 25 interviewees in this study said they were more likely to have sex when drunk and one female said she was more likely to have sex when she used drugs. Five of these young people reported regret following drunken sex. When asked if they were more likely to have sex when drunk the following interviewees answered:

*“Yes I’m more likely to have sex when I’m drunk” (M 17, p. 1 - 2).*

*“If I hadn’t had a drink I probably wouldn’t do it. And it does come down to that I think. You just don’t care. Because I’m a different person when I’m sober to when I’ve had a drink. Everyone is.” (F 1, p. 10).*

Personality theory may explain this as the pleasure seeking demands of the id (requiring immediate satisfaction) and the ego (trying to meet the demands of the id) outweigh the moral sensors of the super ego.

The World Health Organisation (2005) study found one of the key patterns associated with alcohol use and sexual behaviour was the use of alcohol serving venues as meeting places for sexual encounters. The social aspects of going into town and to night clubs were found to have a common relationship to excessive alcohol consumption in

this research. This is supported by social theory whereby environment is believed to affect behaviour; a belief confirmed by Lindsay (2003) who found that sexual risk taking was influenced by the places where young people 'hang out'. Twenty four out of 25 interviewees described social drinking patterns (one interviewee was not asked) and 19 interviewees reported harmful alcohol drinking patterns.

The relationship between alcohol consumption and sexual behaviour described by the interviewees above supports the findings of George and Crowe (1989) with reported increased sexual arousal when drunk. In a review of the effects of alcohol on male and female sexual responses, they found that alcohol disinhibited psychological sexual arousal both pharmacologically (the result of cognitive impairment) and psychologically (the result of socially learned expectancies).

The blocking effects of alcohol on an individual's inhibitions about enacting a behaviour is referred to as alcohol myopia theory. Murphy, Monahan and Miller (1998) used alcohol myopia theory in a study of 82 single women, aged 21 - 30. Participants fell into four categories: those who expected alcohol and received alcohol; expected alcohol did not receive alcohol; did not expect alcohol received alcohol; and did not expect alcohol did not receive alcohol. Each woman was exposed to four video clips of potential male partners with high and low sexual risk and with high and low physical attractiveness. Women exposed to alcohol rated an attractive (provoking cue), but sexually risky (inhibitory cue) man as having significantly better relationship potential than women not exposed to alcohol. When the man was attractive and sexually safe or was unattractive (low inhibition conflict), both women exposed to alcohol and those not exposed, rated him similarly. This supported their hypothesis that alcohol affects judgement only under inhibitory conflict.

Furthermore, Monahan and Lannutti (2000) found that when given alcohol and placed in a flirtatious situation with an attractive male, women with low social self-esteem became less anxious and more likely to disclose information about themselves, whereas women with high social self-esteem were not significantly affected. This may explain reports of 'getting your bottle' and having a 'split personality' when drinking, from the humanist perspective.

Clearly interviewees have demonstrated a preconceived expectation that they are likely to have sex when they get drunk rather than as a consequence of being drunk. Fox

(2011) argues that it is the beliefs about the effects of alcohol that act as self-fulfilling prophecies; if the belief and expectation of an individual is that alcohol will make you aggressive, then that is what it will do. She adds that it would be possible to get roaring drunk on a non-alcoholic placebo. This is supported in a study of 100 male social drinkers by George et al. (2000), who found that the 'alcohol stimulates sex' expectancy was confirmed when subjects were served non-alcoholic drinks in the belief that they were in fact consuming alcohol.

The theory of alcohol expectancy is not a new concept. The scientific study by MacAndrew and Edgerton was first developed in 1969 and corroborated the theory that the mere belief that alcohol had been consumed could disinhibit sexual responding (George and Stoner, 2000). Fox (2011) argues that these erroneous beliefs provide the perfect *excuse* for anti-social behaviour. If alcohol *causes* bad behaviour, then you are not responsible for your bad behaviour and you can blame the alcohol. Alcohol expectancy may provide the interviewees in this research with a sense of cultural acceptability that excuses their behaviour. The following girl describes how she had sex even though she knew she had Chlamydia, blaming her behaviour on being drunk:

*"Like when I knew I had it (Chlamydia) I wouldn't sleep with him but then when I was drunk I did, and I knew I had it...Cos I'm dead shy like so when stuff like that so if I don't know someone I daren't do it but if I'm drunk then I do I wouldn't do it when I was sober but when I was drunk you don't know what you're doing do you" (F 7, p. 2 - 3).*

### ***Lifestyle transitions***

The developmental discipline believes that the transition from adolescent to young adult will engage lifestyle changes, such as independence and starting a career, and will probably involve making new friends and developing intimate relationships. Personal levels of self-esteem, coping skills and support can affect whether a young person will depend upon alcohol or drugs to ease this lifestyle change (Hunt and Guindon, 2010). This process requires a degree of identity exploration to find out who they are and what they want. Alcohol (and drugs) can help to expand their awareness and experience (Hunt and Guindon, 2010). Grinblatt and Keloharju (2009) refer to this as 'sensation seeking'. This is believed to be a personality trait that is characterised by the desire for exciting levels of stimulation (Gaither and Sellbom, 2003).

Sensation seekers search for experiences associated with risk and consequently demonstrate risky behaviours such as dangerous driving and risky sexual behaviour. Piko (2001) believes that the individuals' perception that they are indulging in risk taking or sensation seeking behaviour, rather than that of maladaptive coping, actually prevents them from understanding the harmful and future consequences of their actions. Furthermore she found no gender differences related to risky coping factors. Whereas in a sample of 375, 18 - 25 year olds, Bradley and Wildman found that females scored lower than males on both risk taking and reckless behaviour (Bradley and Wildman, 2002). This research found no gender differences in relation to risk taking behaviours.

The following couple report drug and alcohol use and sex. She was the only interviewee to describe an increased tendency to have sex when using drugs (cannabis or whiz), whereas he is more likely to have sex when drunk:

*"Just smoke. A few cowies (ecstasy)...just a few different things but nothing that's stupid, you know, like crack or heroin or anything, I wouldn't go near that ...Not really (sex with drugs) no It doesn't get me in the mood like" (M 14, p. 5 - 6).*

*"Cowies (ecstasy) I've smoked dope and that before...and whizz (amphetamines), that's it really. Same as him really, the whizz. I don't really do it that often, it's not really much, but it just feels better (sex), I don't know why. ... yes (more likely to have sex with drugs) - he usually drinks and takes drugs" (F 13, p. 5 - 6).*

Chersich et al (2009) found an increase in regretful sexual encounters, unsafe sex and acquired sexually transmitted infection when drunk. Bonomo et al (2001) also found one in 10 young people reported drunken sex which they later regretted. Raising awareness of the consequences of risky behaviour is the method adopted by the alcohol campaign 'Know Your Limits: you wouldn't start your night like that' (described above). Although this approach is embedded in the cognitive domain this may not be relevant to individuals who have not experienced a negative outcome related to alcohol. Regret was experienced by the following interviewees.

*"Once I have had a bit of drink, I am just like more drink, more drink, and then my guard goes down and I just don't care and I am like more, more, more, you could say no, but when you are drunk your guard is down and you just don't care and it's like yes... but*

*then the next day when you wake up you are like, shit, I wish I had never done that” (F 21, p. 12).*

*“Not really sex but there was once with alcohol I probably wouldn’t have done it without alcohol...it was just oral sex” (F 5, p. 6).*

*“Then one night, this lad did and I was just like meeting him and then ended up taking – what do you call it when they use you – when you are mortal and you can’t control yourself? I was just like, what are you doing, and he didn’t use anything and he was the last person, and I knew I had it (Chlamydia) off him last time, It wasn’t really rape because I was like...I could...” (F 22, p. 12).*

*“You just go out as I say you get your beer goggles on, and pull anyone as much as you can it escalates from there” (F 9, p. 3) ...”yeah, drinking not drugs” (M 8, p. 3)...”Most (times have sex when drunk), you wake up in the morning and you think have I just done that” (M 8, p. 3)...”Most times” (F 9, p. 3).*

Young people drink alcohol for a number of reasons. It is thought that in most cases these are social, excitement and positive reasons such as pleasure (Kuntsche et al., 2005, Crowe and George, 1989, Monahan and Lannutti, 2000, Bradley and Wildman, 2002). Other reasons include relaxation and coping (Kuntsche et al., 2005, Piko, 2001). Despite the multiple factors associated with alcohol consumption, Cox and Clinger (1988) believe that the final common pathway to drinking is motivation. They believe the motivation to drink is associated with incentives in other life areas and the ‘affective changes’ derived from the ‘incentive motivation’. They describe incentive motivation as simply the individuals’ drive to pursue incentives; positive incentives will attract the individual and negative incentives will repel them. This is referred to in behavioural psychology as operant reinforcement (Gross, 2005). The affective change is the change from the current state.

Alcohol use and incentive motivation are intertwined. The affect that people experience before alcohol consumption, and that which they expect to change by drinking, is said to have probably arisen from their goal striving and their success or lack of success in reaching their goals (Cox and Klinger, 1988). This motivation could arise from past positive effects resulting from alcohol consumption such as relaxation or an increased confidence. This is referred to as ‘direct experience’; a moderator of attitude behaviour

predictability. If we apply human motivation theory, such as that described in the humanist domain by Maslow, it would suggest that goal striving can be a motivator to drink with expected positive affective changes such as that of belonging in social groups and self-esteem (Maslow, 1943).

### ***Lethal habits***

Stewart and Devine (2009) found that the two positive reinforcement motives of enhancement (internal positive reinforcement) and social benefits (such as approval) were correlated with the personality type extravert and not with personality type conscientious, whereas motives of coping and conformity positively correlated to neuroticism and negatively to extraversion.

Gross (2005) states that personality theorists use personality questionnaires in an attempt to establish factors from which everyone can be compared, which requires a 'nomothetic approach'. This approach believes that there are a number of traits or dimensions that are common to everyone, as opposed to a 'ideographic approach' which seeks to identify unique characteristics and qualities belonging to the individual. In a review of adolescent and young peoples' drinking motivation Kuntsche et al (2005) found social motives to be related to moderate drinking, whereas enhancement and coping tended to be associated with heavy drinking. However, this approach assumes that the personality is stable and will be consistent from one situation to another. As I have discussed in chapter four, social and behavioural psychologists believe there to be a range of variables which will determine behaviour such as direct experience, involvement and certainty. These can change according to time and situation. Whether behaviour is determined by situational factors or by a personality which is stable and relatively permanent is referred to as the 'trait versus situation debate' or the 'consistency controversy' (Gross, 2005). An example of a situational variable in the form of available money to spend can be observed in the following account:

*When asked how many alcoholic shots he consumes in a night he replies: "Depends how much money I've got on me" (M 8, p. 5).*

The local alcohol profile for County Durham and Darlington demonstrates levels of alcohol misuse above the England average. Between 2003 and 2005, 1,525 people were admitted to hospital with alcohol-specific conditions including 325 young people

under the age of 18. For women the highest admission rates (>400/100,000 population) were among 15 - 19 year olds (2000-2006) (NHS County Durham and Durham County Council, 2009). The British Liver Association predicts a large increase in future liver disease associated with binge drinking, which most interviewees described and is supported by the following accounts:

*"I normally have a bottle of vodka before I go out, like a medium bottle, and then when I'm out I could have up to 15 or 20 drinks like...Double vodkas, shots, bottles of blue if I'm mortal. I spent a 100 quid on drink last night; my average is about 80 quid" (F 7, p. 3).*

*"Drinking in house first (before going out)...like vodka and coke, or martini, or mickey finns about five, then shots, about 12 or something, 12 off the trot; drink loads and get mortal" (F 22, p. 9 - 10).*

*"I am worse than that – I am just an alcoholic...if I was going drinking down the town. A bottle of vodka (before going out). A full one...Then Pints (five), vodka, shots, anything...I have lost count by that time... Whatever I want I just get, I am just greedy... Once I have had a bit of drink, I am just like more drink, more drink, and then my guard goes down and I just don't care and I am like more, more, more" (F 21, p. 10 - 11).*

Only one out of 25 interviewees reported to rarely drinking the odd glass of wine (F 23, p. 5). Whilst interviewees one to five were not asked about their exact drinking patterns they all described sex, regret or behaving different when drunk. The remaining 19 young people reported risky drinking behaviour. The risk of drinking harmful amounts of alcohol appears to be offset by the frequency of drinking, for example only on a Friday night. The cost is large compared to earnings and may dictate the frequency of drinking, except with the university students who access cheap alcohol at the student union bar. A selection of interviewee accounts include:

*"A bottle of wine in the house while getting ready then aftershock and lemonade. If I don't have a drink in the house, I will have Aftershock and I will just stay on that all night – about four, or I'll have wine or vodka and coke - that's all I drink... quite a few its cheaper, doubles for singles, five or six (amount spent £40-50)" (M 16, p. 5).*

*“Yeah on a Wednesday, just girls, we go round to my friends and she cooks for us all and we just have a drink, vodka and boost and blue wk, sometimes a half bottle of vodka sometimes a litre, and one or two (wk)” (F 25, p. 7).*

As with other interviewees university students have morbid patterns of alcohol consumption and university students may spend significantly less due to low university prices:

*“In a typical week, let’s think, probably in a typical week I drink two nights out of seven... I’ll drink – I don’t know - probably about eight shots worth of something; so eight shots either of vodka or of gin that night... Probably at a house party I will drink more, because you make punches and stuff and because they go on longer, and if I am going out to somewhere like Newcastle I probably would have drinks before and when I am there as well... A shot in college a single with a mixer would be £1.50 and a double would be £3” (M 18, p. 4).*

Again lethal amounts of alcohol are consumed but in this case there is a small and affordable cost (£15/night) which could be reflective of student union prices:

*“Too much (drank in a night) about 40 units. Well last night I had a litre and a half of cider then I had two pilssteins and then about 15 shots, but that is not the usual, probably about half that” (M 17, p. 2).*

The following young man monitors his intake according to working responsibilities, which appears to be a protective factor which was identified by Kenny (2010):

*“I don’t really cos I’m working all the time and working in the bars at a weekend, I usually go out about once a fortnight. I usually drink about four cans but sometimes up to eight” (M 11, p. 2).*

The North-East has the highest levels of alcohol use in the country especially in under 18 year olds (Kenny, 2010). County Durham and Darlington have some of the worst rates of unemployment and poverty, which are key risk factors for alcohol misuse. The interviewees above have described socio-cultural and environmental influences to consuming alcohol. Socialising with friends, meeting new people and using alcohol-serving venues to socialise, such as clubs, all appear to be part of the local culture.

Lifecycle transitions have historically had cultural rituals that indoctrinate us to the use of alcohol, for example 'wetting the baby's head' when a child is born, at weddings, funerals, graduations and birthdays (National Chlamydia Screening Programme, 2010a).

The cultural influence can have an impact on the health outcomes of alcohol use. Italian and Jewish communities have been found to have high rates of alcohol consumption but healthy drinking patterns which are believed to be culturally reinforced (Cox and Klinger, 1988). Fox (2011) describes these as 'integrated drinking cultures' that social psychology would explain as part of a moral, normal and integrated everyday life. Fox states that the variation in the difference between 'integrated drinking' and 'ambivalent drinking' where drinking is associated with disinhibition, aggression, promiscuity, violence and anti-social behaviour, is not in the levels of consumption. Integrated cultures (Latin and Mediterranean) tend to have higher alcohol consumption compared with those of ambivalent cultures (UK, US, Australia and parts of Scandinavia). She attributes the variation to differences in cultural beliefs about alcohol, different expectations about the effects of alcohol, and different social rules about drunken behaviour.

The interviewee accounts discussed in this chapter describe alcohol consumption in relation to sexual behaviour, which may be influenced by the situation: how much they drink, cost and where they socialise. However, this does not explain the intention of the individual to drink in the first place. The framework of developmental psychology is used by Erikson to describe eight stages of human development that occur over the whole lifespan. This research is particularly concerned with the stages of 'adolescence' 12 – 18 years and 'young adulthood', 19 - 40 years. In the adolescent stage psychosexual maturation is achieved, the girl becomes a woman and the boy becomes a man. Whilst the family remain important to the individual the transformation tends to be centred on the social group. Erikson identified a psychosocial crisis of identity versus role confusion. The teenager needs to develop a sense of self and personal identity. Failure to do this leads to role confusion and a weak sense of self (New Scientist, 2011). However Arnett (1992) argued that 'attributional thinking' underpins the behaviour, for example, the individual would value the positive thought that 'alcohol will improve their confidence' rather than the negative of 'I drink because my peers expect it'.

The young adulthood stage of development (18 - 40 years) described by Erikson is concerned with loneliness versus isolation whereby the young adult needs to develop loving and intimate relationships. Selecting a partner and choosing a career are considered to be the important stages in this development (Norlin, 2003). Newman and Newman (2009) developed Eriksons' work further by categorising adolescence into an early and later stage. They believe that the individual must first of all develop a group identity or face alienation from their peers. Alcohol use may provide a sense of belonging within peer groups, enable opportunities to meet new friends and partners, and promote confidence within social groups. Failure to follow the crowd and achieve group identity may have significant consequences for young people.

### ***Peer pressure or herd behaviour?***

NHS Choices (2011a) describe peer pressure as:

*"Peer pressure is the pressure that your friends and the people you know put on you to do something you don't want to do, or don't feel ready to do, such as have sex. There are different types of peer pressure."*

There is obvious peer pressure, such as: *'everyone's doing it, so should you'*; underhand peer pressure, such as: *'you're a virgin, you wouldn't understand'*, and controlling peer pressure, such as: *'you would do it if you loved me'*.

In the live survey of 1,006 people only 7% said that they were not influenced by peer pressure as an adolescent (Survelum Public Data Bank, 2011). Peer pressure has been considered as one of the hardest things a teenager has to face (Bradford-Brown, 1986). Age has been found to be a factor in individual perception of peer pressure. Erikson's theory on the development of ego identity found that the early adolescent has a need for belonging within a peer group and hence conformity to group norms (Davenport, 1992). However, in later adolescence as personal autonomy increases (see individuation, chapter eight), conformity to the group norm becomes less important to the individual, and with age many behaviours such as sex, smoking and alcohol use become legal, acceptable and/or normative (Norlin, 2003). Norlin et al (2003) describe this as the transition from a group identity (providing the framework) to the personal sense of identity, (self). However, most interviewees in this study (15) stated that they had no experience of peer pressure which was put into the context of having sex, alcohol and

drug use. The following interviewees do not believe that they have been influenced by peer pressure and appear to feel in control of their respective situations:

*“No (F 13) ... I have probably risen above it before that come up (M)” (F 13 and M 14, p. 13).*

*“No (experience of peer pressure) people have asked me if I want drugs but I said no” (M 11, p. 3).*

Whilst the following interviewees state that they have not experienced peer pressure, they report risk taking behaviour such as excessive alcohol use and casual sex when drunk as an acceptable and sometimes an expected part of their social life. Sinha et al (2007) refers to these as ‘peer norms’ which can influence behaviour. The effect of peer groups on behaviour is referred to by Ajzen (1991) as ‘the subjective norm’, which is a variable in his theory of planned behaviour. The subjective norm is the social pressure created by significant others, such as peers and parents, which affects the motivation of the individual to display or change behaviours (see chapter four).

The effect of adopting the behaviour of a social group is also referred to as ‘herd behaviour’ and has been applied to fads, fashion, customs and even financial markets (Allsopp and Hey, 2000). Group behaviour was observed in the following interviews although the individuals did not recognise any pressure to themselves. Bradford-Brown (1986) explains that the perception of pressure is reduced if the situation is perceived to be neutral or pro-social. The following accounts may also demonstrate ‘attributional thinking’ where peer pressure was not recognised in the context of social situations:

*“No (experience of peer pressure)... Like most people have sex when they’re drunk, they all get their bottle a little bit” (M 3, p. 6 - 7).*

*“Erm, not from peers I wouldn’t no (experience of peer pressure)... If it is a house party it is different... Probably at a house party I will drink more, because you make punches and stuff and because they go on longer” (M 18, p. 4 - 6).*

*“When I go out drinking I mean I go to Newcastle a lot and when you’re out drinking you think ah wey I’m just gonna get smashed tonight and then you go to like the last nightclub and obviously you meet someone and then obviously you meet some and you end up having sex with them” (F 2, p. 5).*

The influence that peers have on their peers is considered to be so powerful it is used in marketing campaigns (Roberts, 2010). The following accounts describe drinking which appears to be normalised within their peer groups:

*“No (experience of peer pressure)... I go out once a week, night club with my friends on a Wednesday, just girls, we go round to my friends and she cooks for us all and we just have a drink (large volumes)” (F 25, p. 7 - 8).*

*“No (experience peer pressure)... Just social (drinking) out with my mates” (M 4 and F 5, p. 7).*

*“No (experience of peer pressure)... Yeah its normal (drinking) with young people” (M 8 and F 9, p. 7).*

In challenging social norms and rejecting herd behaviour a teenager or young adult faces, at best, questioning or misunderstanding and at worst, outright rejection from the social group. The following girl described how she retains her control over the expectation to drink alcohol and covertly managed the pressure from friends:

*“No (experience of peer pressure)... And like when I was at the party I just pour a glass of lemonade because no-one is going to know, it could be anything” (F 22, p. 13 - 14).*

The pre-election Conservative party pledged in their manifesto to ban ‘peer to peer’ marketing in an effort to tackle the commercialisation of and sexualisation of childhood (Roberts, 2010). The concept that educational material may be readily grasped through peer exchange rather than adult to child interaction is a common approach used in ‘peer education’. Damon (1984) explains that information from a peer is easier to understand as they are more inclined to speak directly and feedback is likely to be taken seriously with a need to reconcile any differences. Damon (1984) puts this into the context of developmental psychology and the work of Piaget, in that a child can force another child to ‘decentre’ by taking the perspective of the other. Disagreements between the children cause social and cognitive conflict which can lead to important realisations. This occurs through a three stage process which includes awareness of other points of view, examination and reassessment of their own points of view and finally justifying and communicating their own point of view.

The following five interviewees described their experience of peer pressure. Although alcohol and tobacco use was considered acceptable, the pressure to use drugs was not. This may be relevant as a culturally unacceptable practice that would not provide any benefits to the individual such as raised self-esteem. This is discussed in chapter four, where risk-taking behaviour can be considered to be socially unacceptable with negative outcomes or as socially acceptable behaviour with recognised dangers (Turner et al., 2004). The following interviewee describes how drug use is socially unacceptable:

*“I think when my mates do things I think sometimes I give up easy but when I used to go to the football some of my mates used to do cocaine and would say have a go but I daren’t do that like –that’s just scum bag” (M 10, p. 5).*

*“Er just the group of people who I started hanging around with like really bad people, for the drugs part ... Drinking was just fun and everything because everyone else was doing it and I wanted to do it as well because it was like fun, same as smoking actually, it made me look cool but, it really doesn’t” (M 24, p. 12).*

The perception of pressure and risk may be attributed to the age of the interviewees, in this case 15 - 24 years. As Bradford-Brown et al (1986) found the effects of legalisation with age on alcohol and tobacco use created a perception of less pressure, whereas illegal drugs use would create a sense of pressure:

*“Maybe when I was a lot younger but not to an extent where it was uncomfortable and you felt you had to, there was a little bit there but not... When you think about when you go out, you go out for a meal or you go out and have a drink and that’s how you socialise” (F 1, p. 3 - 4).*

### **Offsetting risk**

Offsetting risk is well documented (Hedlund, 2000, Wood, 2006, Brewer et al., 2007, Sjöberg et al., 2004). Offsetting risky behaviour otherwise known as ‘risk compensation’ or ‘risk homeostasis’ can be explained from a behavioural perspective as a form of behavioural adaptation: not only do we modify our behaviour in response to external changes designed to make us more or less safe, but we seek to counteract these changes completely and return to our desired risk level (Hedlund, 2000). This is also

discussed in chapter 11 where interviewees reported Chlamydia screening to offset risky sexual behaviour. Some interviewees attempted to offset the harmful effects of alcohol by drinking less frequently and in one case a young woman avoided alcohol so as not to have sex:

*“The first time it didn’t, no, cos I’d said I don’t want to drink and like cos we’d really liked each other for a long time and I said I don’t wanna involve drink, I said I just want you to get to know me when I’m sober and not when I’m some wreckhead. He was like right ok then. We went to the pictures and had something to eat, it was lovely. We met each other three weeks later, in Newcastle, we’d both had a drink and that was it. Like I says to him I said God this time three weeks ago we were getting ready to go to the pictures without any alcohol. I said and look what’s happening we’ve both had a drink” (F 2, p. 6).*

*“I mean I got put down as a binge drinker! But that’s cos whey when I drink which is barely ever I’ll drink like go out and get wasted but it’s not as if I do it very often – I don’t go out very often, and I don’t drink just like out of pleasure so it’s like I don’t drink much but I got put down as a binge drinker!” (M 4, p. 7).*

*“Normally just a Friday and a Saturday” (M 8, p. 4).*

Approximately 1% of reported alcohol related crimes in County Durham and Darlington were sexual offences (NHS County Durham and Durham County Council, 2009). The following interviewees described offsetting their risks associated with alcohol consumption, for example by arranging transport and using one way valves called ‘spikies’ in drinking bottles to prevent contaminated drinks leading to sexual assault. Personality and cognitive theories would argue that risk homeostasis is dependent upon the actual perception of risk. Hedlund (2000) states that we all change our behaviour in response to some changes in perceived risk (injury) and that we may take additional precautions if we believe our risk has increased. The age differences in risk-taking behaviour appear to stem from the individual’s different evaluation of risk (Wood, 2006). Wood (2006) believes that young people, and particularly young men, tend to evaluate their level of risk as much lower than older people would, even in identical situations.

*“It’s already always arranged (return transport) already, before we go out, we have a minibus, so it’s never really been a bother that (getting home)” (F 12, p. 8)*

*“We both look after each other now though, since about four weeks ago when my friend actually got into some trouble, we both look after each other and we watch what we’re drinking as well. My friend was spiked and raped a few weeks ago, she wouldn’t go to the police, she refused to go she said what’s the point she says it could be anybody, I says aye but he’s out there doing stuff I said there’s other young lasses I said and you never knew what he could do. We know who it was.... I drink a lot of bottles and I get those spikies and I always put them in the top, the lasses say why you using them, but I say Newcastle’s a big place and it attracts a lot of men, God knows what could happen there” (F 2, p. 6 - 7).*

### ***Violence and sexual violence***

British Crime Survey, 2007-08 (Kane et al., 2004) asked victims of less serious sexual assault in the last year and victims of serious sexual assault aged 16 and over whether they thought the offender(s) were under the influence of drink or drugs and whether they (the victim) were under the influence of drink at the time of the incident. Victims were more likely to report that offenders were under the influence of drink rather than drugs. However, Fox (2011) argues that it is not the effect of alcohol that causes anti-social behaviour but the cultural norms and rules that we accept and live by.

Overall, five out of 25 interviewees reported violence or sexual violence to themselves or someone they knew whilst drunk and one interviewee disclosed she had been raped whilst drunk (F 25, p. 8).

Three interviewees recalled drinks being ‘spiked’, one leading to rape and one young man recalled his friend who was violent:

*“Well not violence when they have been out getting drunk but one of my mates bashes his lasses and stuff like that... Like beating his last girlfriend up after drinking but he’s not like that in the day – you know what I mean – he wouldn’t hurt a fly” (M 14, p. 9 - 10).*

The following three interviewees described violence or rape as a result of being drunk:

*"I know from the police I had to go on an anger management course and it had drink and sex and that. It was a referral order like I had to go every two weeks to this place and they would counsel and talk to you like instead of getting like a conviction. That was for smacking the manager at Wetherspoons over the top of the bar, that was through drink I was mortal" (M 6, p. 4).*

*"Well I know people getting drunk and fighting and I know one person who has been raped while being drunk and that wasn't very long ago actually" (M 24, p.10).*

*"My friend was spiked and raped a few weeks ago" (F 2, p. 6 - 7).*

Like the female above the following two girls recount drinks being 'spiked':

*"I can't remember anything that happened. Being in a pub, coming home and my dad was there who I have never spoken to for 17 years. But he was there, and I was just spewing, and I woke up the next day with my pyjamas on and I can't even remember how, and I am never like that, I never spew. So I reckon it was spiked" (F 20, p. 11 - 12).*

*"Yes, I went on my cousin's hen night and one of her friends got something dropped in her drink ... She was just on the floor and she couldn't move or anything" (F 12, p. 9).*

### **Age, sex and alcohol**

In 2000 the national sexual attitude and lifestyle survey (NATSAL) found the average age of first sex to be 16 years (NATSAL, 2000). In Northern Ireland a survey of 14 - 25 year olds found similar results similar to that of the UK. The questionnaire was completed by 1,013 young people. Just over a quarter (26.7%) reported first sex before the age of 16 and those who had first sex at the age of 15 or 16 reported being drunk as the main contributory factor, with no differences in gender (Sutherland et al., 2008). In a large randomised control trial of sex education intervention, Mann et al (2007) found that young people who had been drunk at baseline (year nine) were more likely to describe other risky behaviour such as smoking or sex under age 16 as well as being drunk at first sex.

Interviewees 1 - 5 were not asked about their age at first sex and first alcohol use. Nineteen young people reported first alcohol use either before or at the same age as

first sex (five same age). Less than half (four females and four males) reported using alcohol when they first had sex. This supports the concept that risk taking tends to occur in multiples. The mean number of years between alcohol use and first sex was 1.8. This was affected by two university students who reported an unusually long gap of four years from first alcohol (age 15) to first sex (age 19) (Table 6):

**Table 6: Respondents by gender, age, sex and alcohol**

<b>Interview number</b>	<b>Gender</b>	<b>Age 1<sup>st</sup> sex</b>	<b>Age 1<sup>st</sup> alcohol</b>	<b>Alcohol use at 1<sup>st</sup> sex</b>
7	F	13	13	No
9	F	15	14	No
25	F	13	13	Yes
13	F	13	12	No
12	F	14	15	No
19	F	14	11	No
20	F	16	12	No
15	F	16	13	Yes
21	F	13	13	Yes
22	F	15	13	Yes
23	F	15	13/14	No
6	M	15	12	
8	M	14/15	13	Yes
10	M	15	15	No
11	M	15	15	No
24	M	16	13	Yes
14	M	13/14	9/10	Yes
16	M	16	15	No
17	M	19	15	Yes
18	M	19	15	No
<b>Summary</b>				
	<b>F 11 M 9</b>	<b>Average age 14.35</b>	<b>Average age 13.25</b>	<b>No 11 Yes 8</b>

### ***Getting alcohol***

In the UK eight out of 10 young people have already tried alcohol by the time they are 15. Guidance from the Chief Medical Officer in 2010 emphasised the importance of

parents' influence on their children's drinking, as attitudes to alcohol can often be passed down from parent to child because children see their parents as role models (Drinkaware, 2011). Gross (2005) refers to this as 'persuasive communication', a form of attitude change. Parents can have a massive influence on the behaviours of their children (Leather, 2009). This is a belief of social psychology in that an individuals' thoughts, feelings and behaviours can be influenced by others (Davenport, 1992).

The Youth Alcohol Action Plan (Department for Children Schools and Families Home Office and Department of Health, 2008) also sets out clear priorities concerning alcohol and young people under the age of 18. One of the priorities of the action plan is to issue advice to parents about young people and alcohol, including guidelines for low risk drinking. The action plan offers information on the health and social impacts of drinking at young ages, sources of help and support for parents including evidence-based approaches for them to use with their children (page 18).

The Home Office (2004) found that 48% of 10 - 17 year-olds who had drunk alcohol in the past year reported that they obtained alcohol from their parents, although those who got very drunk at least once a month generally obtained alcohol from pubs, bars and shops rather than from their parents. Around half of 16 - 17-year olds had tried to buy alcohol from pubs and bars (59%) or shops (47%) in the previous 12 months and most had been successful at least once (98% of those trying pubs and bars and 96% of those trying shops).

This research found that 12 interviewees obtained alcohol from either parents or friends. Even those who described alcohol disapproving parents consumed alcohol outside of the home. Cognitive dissonance theory explains this, where two cognitions are dissonant from each other causing conflicting ideas simultaneously (Festinger, 2011). However, this may not create the psychological tension described by Festinger (2011) as the drive state or motivation to drink can be altered, such as partying with friends and social acceptance which reduces the conflict and disapproval by parents resulting in a pleasant experience and alcohol consumption. In other words attitudes can be changed to fit behaviour. Furthermore the greater the 'punishment' for a forbidden activity can create a greater desire or 'over-compensation' (Home Office, 2004).

*“I’d had the odd bottle and that - my mam would give me a little alcopops or something daft like that but people just used to go in the shop and things... She wouldn’t let me go out and drink” (F 12, p. 7).*

*“From people that’s older (F 9, p. 4) ... Me mam would have to stay with me I wasn’t allowed to take them outside (M 8, p. 4)... Yeah I could in the house” (F 9 and M 8, p. 4).*

*“I was allowed to drink in the house with my mam, either that or other people would buy me it... I was still going clubbing at 16 as well” (F 16, p. 4).*

### **Conclusion**

A number of measures have been proposed to encourage responsible drinking including the clear labelling of alcohol. Raising awareness of safe limits, potential harm, calories per unit have also been proposed. Tackling under age sales of alcohol has been implemented and the charity ‘Drinkaware’ aims to raise awareness of the dangers of alcohol consumption. There is a sponsorship code for marketing to promote responsible drinking and not targeting young people, for example not placing billboards near schools. There is also a focus on community action to tackle alcohol harm e.g. community alcohol partnerships.

Despite the educational and marketing programmes used today and whether the young people in this study either did or did not understand safe drinking limits, most discussed their harmful drinking patterns. Most interviewees said that they were more likely to have sex when drinking and some reported using alcohol to give them confidence. The promotion of the calorific content of alcohol may be a relevant topic for young people to consider and supports Kenny’s (2010) finding that positive body image is an important protective factor against risk taking.

The NICE recommendations on minimum pricing for units of alcohol is unclear on the impact this has on low income families and does not demonstrate that the best way to reduce demand is to increase price. Supply and price are two of many factors considered to drive alcohol misuse. However, regardless of legislation alcohol is a commodity that was found to be easily accessible to young people and affordability was enabled by ‘pooling resources’ with friends where necessary.

Recently the Chief Medical Officer, Sir Liam Donaldson issued the advice that children under the age of 15 should not drink alcohol at all. However 48% of young people aged 11 - 15 stated that they obtained alcohol from parents and by the time they reach the age of 16 and 17 it is legal for young people to consume alcohol out of the home, if accompanied by an adult (Department for Children Schools and Families Home Office and Department of Health, 2008).

Once young people use alcohol serving venues they are offered 24 hour licensing which appears to be a paradox to the public health, clinical and police efforts to reduce alcohol consumption and binge drinking (Johnston, 2011). Given the government intentions to reduce harmful alcohol consumption there appears to be a 'drinking double standard', with the legalisation of 24 hour licensing versus the national marketing campaigns aimed to reduce drinking. However, Marsh and Kibby (1992) disagree with this argument and have observed specific peaks in public disorder arrests and believe that fixed licensing times led to high volumes of people on the street at closing times with an increased opportunity for frustration and conflict.

In a systematic review of 13 longitudinal studies, Anderson et al found that alcohol advertising and promotion increases the likelihood that young people will start consuming alcohol or consume more if they have already started. In 2011 Professor Ian Gilmore called the government to follow France and ban alcohol advertising (Gilmore, 2011). Meanwhile the use of media channels, such as Facebook, continue to target young people through the 'night-life' alcohol culture linking young people all over the world (Facebook, 2010, You Tube, 2010).

Whilst alcohol consumption has had an overall decrease in recent years, drinking patterns have also altered. The numbers of young people who drink has fallen, although there has been a sharp increase in the quantity of alcohol that young people are consuming (Department for Children Schools and Families Home Office and Department of Health, 2008). This phenomena is supported by the local alcohol profile data and can be observed in the interview accounts in this chapter. Whilst some interviewees (10/25) were not aware of safe alcohol limits in this study, those that were aware (15/25) did not display healthy drinking behaviours.

Clearly alcohol advertising such as the 'Smirnoff Experiment' appeals to the social and developmental needs of young people. This embraces the concept that risk taking can be a pleasurable experience with the short term rewards able to surpass the negative consequences of behaviour. De-individuation is assured in a global culture providing a secure environment to explore self-identity and self-esteem.

In relation to drug and alcohol use amongst college students risky behaviour is a practice which has been found to be valued by students. Interviewees valued the experience of consuming alcohol and discussed offsetting their risk by drinking on occasion, such as once a week, using spikies to prevent being drugged and raped, and by travelling in groups with friends to prevent assault. This provided a sense of control and enabled them to enjoy the experience. This conceptualisation removes any need to control the substance, but requires the substance user to be more skilled (Workman, 2009).

Alcohol may be a vehicle to enable experiences, such as dating, as a result of increased confidence and well-being. The central experience of risk taking was identified by Zajdow (2010) in an interview transcript:

*"I think what it (drug use) did for me was to remove to a fair degree my self-obsession... my timidity, my chronic sort of shyness. I thought that was the real me. Then of course I could just do what my feelings led me to, because I wasn't scared of them. It was a better me" (Zajdow 2010, p. 224).*

However, this does not consider the price of 'being different' in the way that public health practitioners would like young people to be different. This is based upon the assumption that young people need to have a sense of belonging in social groups (ego identity) (Davenport, 1992), movement away from this would cause anxiety. This would require a significant and immediate change in behaviour, which is not easily navigated by the individual, and would be in direct conflict to their 'herd' acceptability. In such circumstances it would be highly rational for young people to disregard public health literature and not to be interested in knowing and learning more. The 'knowledge' such literature conveys is not socially or contextually relevant.

This chapter has demonstrated the link between alcohol use and risk taking, of which risky sexual behaviours are clearly identified. This has highlighted the voluntary experience of risk taking and the expectations and self-fulfilling prophecies associated

with alcohol use, that are enjoyed by young people and needs to be considered if public health campaigns are to be realistic. Specific politics to address alcohol misuse are not the focus of this thesis but this has identified that risk taking behaviours such as sex and alcohol are complex inter-related issues that are not easily changed. Alcohol consumption is both a risk taking behaviour and a causal factor to other risk taking behaviours. The question to be asked that will enable health to be addressed from the most basic yet effective level is: what is the cause of the cause?

## **Chapter Eleven: Risk and sexual behaviour**

*"The only unnatural sexual act is that which you cannot perform"*

*(Alfred Kinsey 1894-1956)*

The concept of 'free love' appeared in the 1960s in the form of new knowledge about human sexuality, 'the pill', psychedelic drugs, and a counter-culture which rejected conservative ways and embraced the freedom of the individual (Hip Market, 2011).

### ***Introduction***

This chapter discusses risk taking in relation to sexual behaviour. The theory of risk and risk behaviour previously discussed in chapter four has been used to explain the three subcategories that were identified from the interview transcripts. These were: offsetting risky sexual behaviour; the intention to change behaviour and inhibiting factors; and behaviour over time following multiple screening.

Fifteen out of 25 interviewees stated that they would offset their risk of infection by regularly screening for Chlamydia. National policy criticises local delivery for the lack of health promoting strategies such as behaviour change and education, and does not consider that the NCSP actually enables young people to engage in risk taking sexual behaviour. This research has demonstrated that young people used screening to offset their risk, enabling the risk taking behaviours to continue unchanged. This finding was unexpected and is a unique contribution to the body of Chlamydia screening literature.

Theories including homeostasis, optimism bias and discounting were incorporated into this chapter in order to explain emerging data.

### ***Sex through history***

In evolutionary terms Darwin said that the central struggle of life was the struggle to survive and reproduce. However, sociobiologists argue that the participants in this are not people but genes, and that many of man's inexplicable acts are products of his genes' need to propagate themselves. Berridge and Kringelbach (2008) believe that the Darwinian concept is driven by 'hedonic hotspots' in the brain that paint 'hedonic gloss'

onto sensations to make them liked. However, the pursuit of sex for pleasure is not a new concept.

The pursuit of sexual pleasure in the 19th century had some devastating effects, particularly for women. Sexual health received political attention in the 1861 'Offences Against the Person Act' (National Archives, 1861) which made abortion a criminal offence. The 'Contagious Diseases Act' (1864) enforced 'venereal disease' testing for prostitutes, who were locked away until 'cured' in order to protect vulnerable males.

In the 1920s a woman's life was hard. Poor methods of contraception and multiple births led to poor health outcomes. Virginia Ironside worked at 'Woman's Magazine' and recalls the taboo of sex in the 1950s where journalists were not even allowed to use the word bottom – not even in the context of 'the bottom of the garden' (Ironside, 2011). It was also forbidden to print the word menstruation. Women requiring sex advice could write in to the magazine providing a stamped addressed envelope (plain brown) in which they would receive a leaflet explaining 'the facts of life' – but only if they were married of course (Ironside, 2011). This is a stark contrast to the consumer-led, explicit marketing campaigns used locally today (Health Improvement Service, 2011, County Durham and Darlington NHS Foundation Trust, 2011b, County Durham and Darlington NHS Foundation Trust, 2011a).

The American biologist Alfred Kinsey was responsible for publishing two reports which challenged the public silence on sex and sexuality: 'Sexual Behaviour in the Male' in 1948 followed by 'Sexual Behaviour in the Female' in 1953 (Kinsey, 1953, Kinsey et al., 1948). Kinsey and his researchers spent nine years studying human sexuality and their interview techniques revealed the diversity of sexual behaviour. The findings were both astonishing and shocking to the American public. Statistics on homosexuality, masturbation and sexual patterns rocked the nation. The statistics of social science had now flood-lit the taboo subject of sexuality.

Scientific advances also impacted on sexual behaviour. In 1928 the discovery of penicillin led to effective treatments of venereal disease. In 1961 the contraceptive pill was approved which marked the beginning of the sexual revolution. This was supported by the Abortion Act in 1967 which allowed women to go to family planning clinics to discuss pregnancy choices (Lynch, 2005). This period saw a change in public attitude

and sexual risk taking behaviours which Benagiano et al (2007) refer to as a true social revolution and the first 'reproductive revolution' in the history of mankind.

### ***Offsetting risk***

There have been an array of health education attempts in the UK using sexual health marketing campaigns in recent years (NHS Choices, 2011b, Department of Health, 2011a, Family Planning Association, 2010, Avert, 2011). Despite these, there has been a substantial increase in diagnoses of many sexually transmitted infections over the past 10 years. The numbers of new cases of sexually transmitted infections in the UK continued to rise by 3% in 2009 (Health Protection Agency, 2010). The Health Protection Agency announced a small decrease in STIs during 2010 (Health Protection Agency, 2011). This meant that there was a 3% decrease in new diagnoses of genital warts and an 8% decrease in syphilis, although there was a 3% rise in gonorrhoea and 8% rise in herpes diagnoses. Chlamydia diagnoses remained stable at 189,625 in 2009 and 189,612 in 2010. However, when considering these statistics it must be noted that genital warts account for almost a quarter (23.4%) of all new STI diagnoses reported through GUM clinics and Chlamydia accounts for 28.2%; syphilis 0.57%; gonorrhoea 5%; and herpes 9.2%. The human papilloma virus (genital warts) vaccination programme was introduced in 2008 and may also be reflected in the statistical decrease in presentations.

This research found that despite having an awareness of the risks associated with unprotected sex, often as a result of information read, seen on TV or heard on the radio, this did not lead to less risky behaviour:

*"So like you say have sex with a girl I'd go and have a test straight away after" (M 8, p. 8).*

*"Yes, I thought I would (be infected) because I have done a few things when I have been drunk" (F 22, p. 4).*

Cook and Bellis (2004) found that knowledge had no significant links to reduced risk taking, and those with a better understanding of risk were more likely to be risk takers. Many studies have revealed similar findings (Imamura et al., 2007, Lindsay, 2003, Hunt and Macleod, 1988, Brown, 2005). From a developmental and social perspective, Treas

(2002) explains that the life-course transition for young people, such as leaving home or getting a job generally increases the influence of peer groups which creates greater sexual permissiveness than that of the family.

Around one third of local young people screened in 2010 - 2011 had more than one test accounting for almost two thirds (57%) of all screening tests (Table 1, p. 20). Individuals had as many as 14 tests in that year. This screening pattern does not support a change in risk taking behaviour but does reflect the practice of screening to offset risk. The service requirement to achieve high volume screening has also led to targeting of large, accessible populations such as students. This may account for repetitive screening by individuals, although the large university population tends to have the lowest positivity rates which is not reflective of the need for frequent screening. Furthermore, in a recent presentation by a NCSP programme facilitator, it was announced that one of the 'significant successes of the programme 2003 – 2010, was in reaching the socio-economically deprived' (Ainslie, 2012). Upon questioning there had been no mapping of the nationally reported data against deprivation. Therefore, this claim is unfounded, and the practice used to achieve high volume screening is discordant with the principles of screening (World Health Organisation, 2008), and also public health policy that aims to reduce health inequalities through 'proportionate universalism' (Marmot, 2010).

The perception of risk is explained in the cognitive domain as how people think and is important to explaining behaviour. Fifteen out of 25 interviewees stated that they would offset their risk of infection by having regular Chlamydia screening. This finding was unexpected, as national policy advocates Chlamydia screening in the context of a health promoting opportunity, whereas this research has demonstrated that young people used screening to offset their risk, enabling the risk taking behaviours to continue unchanged. This is a unique contribution to Chlamydia screening literature. The concept of risk compensation or 'homeostasis' is linked to sexual risk taking (Brewer et al., 2007). This theory asserts that people are comfortable with a certain amount of risk and that preventative action produces feelings of safety for a surplus of risk to be expended. Examples of risk compensation expressed in this study were:

*"Yeah I did go, I go every six months anyway, it wasn't long after then that I went for a full check up, after the outcome of the test I had a full check up at GUM" (F 1, p. 2).*

*"I will get tested regularly" (M 17, p. 3 - 4).*

Brewer et al found that individuals vaccinated against Lyme disease were less likely to engage in two of five protective behaviours at 18 month follow up and that those with a higher risk perception were most likely to get vaccinated in the first place (Brewer et al., 2007). The following interviewee used regular screening rather than adopting protective behaviour such as using a condom:

*“Yes I carry them (condoms) around with me... All the first three (tests) were done at Darlington College I’d had unprotected sex, and then that last one was done at the training centre... Yes (intention to be safe in future) I will get tested regularly” (M 11, p. 1 - 4).*

In relation to adolescents and personal risk (UV tanning) Sjoberg (2004) found that risk was considered greater in others than to the individual and that perceived control fuelled this optimistic self-bias. This supports the ‘personal fable’ discussed by (Arnett, 1992). The perception of control was observed in the following interviewees who used regular Chlamydia screening to offset their risk of infection:

*“Well I’m starting to now though (test after sex) this is my intention for the future” (M 24, p. 19).*

*“I’ll start taking a Chlamydia test more often” (F 2, p. 9).*

*“No (considering protecting herself in the future) cos you can go and get a test after” (F 9, p. 8).*

The following interviewee stated that he screened for Chlamydia every time he had sex. Although he demonstrated a belief that he was in control, when he reconsidered the frequency of his screening he realised that his perception was faulted:

*“No, now I do it (test after sex)... Three now (tests taken), no, wait, two actually not three. Damn, two out of four, I should have had three but I didn’t, well I’m starting to now though” (M 24, p. 19).*

From a behavioural perspective Ajzen (1991) explain this as a weak association between attitude and intention, or how hard you are willing to try. The sustained behaviour over time, referred to as ‘temporal stability’ requires a strong attitude (Cooke

and Sheeran, 2004). Even when he knew he was infected he had sex with someone else within days of treatment, with the risk of acquiring a new infection and infecting his new partner (as it was too early for his treatment to be effective). Katz et al (2000) describe this deliberate risk taking arising from the desire for short term gratification, as the interviewee explained:

*“I was getting too randy” (M 24, p. 19).*

Chapter four discussed the individuals’ locus of control and the affect this had upon behaviour. However, Ajzen’s (1991) believes that although the locus of control remains constant the perceived behavioural control will change according to situation and actions. The following interviewees who screened to offset their risk of infection had their perception of behavioural control challenged with their unexpected positive results:

*“Because, I would never have thought that I would have actually had it” (F 12, p. 13).*

*“Because he cheated on me again (reason for test) four of them (cheated with four girls), just to make sure I didn’t have it but I have (reason for test)” (F 15, p. 2).*

*“I didn’t think I would have but I was just doing it because, when you go out with your friends you do stupid things” (F 21, p. 4).*

### ***The optimism bias***

Treas (2002) believes that the sexual revolution of the 1960s led to a shift in sexual attitudes with the marked acceptance of pre-marital sex. She believes that new cohorts over time have liberalised public thinking, with the influence of secularism and post materialism having increased tolerance. In other words, new ideas have replaced old traditions and new sexual norms such as co-habitation, same sex marriages and teenage sexual relations have become accepted.

The individualisation of people has embodied men and women to take authority over their own lives. Sex has become less concerned with the family and procreation and more toward the individual and pleasure. Frank and McEneaney (1998) call this ‘cultural individualism’ requiring gender and sexual equality. This has been reinforced recently in social and political movements to such an extent that in 1995 when Robert Mugabe

declared his anti-homosexuality campaign in Africa, he was ordered to cease and desist by 70 members of the United States congress.

Despite being aware of their risk of infection some interviewees believed that they would not become infected and many of those that received positive results considered this to be the exception. In some cases this belief was reaffirmed by their negative result. One male interviewee who was diagnosed with Chlamydia described his experience at having had two partners with unwanted pregnancies. Although he reported only using a condom 20% of the times he had sex, he demonstrated his personal fable in that he didn't think he would be at risk of infection:

*"Yeah well basically I know that there are other infections, but it's to me I wouldn't say I would have it because it's not as common as Chlamydia is and other infections bring on a lot more symptoms ... One already here (baby) which I have to get a DNA test with and there is one on the way which is four months, both unplanned yeah, one was on the contraceptive pill and the other was a split condom" (M 24, p. 3).*

This misjudged overconfidence of risk is referred to as optimistic bias and is well documented particularly in young people. The more certain the individual is of their behaviour the more they are likely to do it, which Ajzen (1991) describes as 'confidence'. From a behavioural perspective if the positives outweigh the negatives, the behaviour is rarely considered to be risky. Katz et al (2000) explain that the short term pursuit of pleasure outweighs the goal of good health.

This concept is similar to what health economists describe as discounting or a bird in the hand is worth two in the bush. This is the expression of opportunity costs over time. This assumes that societies become healthier and wealthier over time and therefore £1 today is worth more than £1 in 20 years (Drummond et al., 2005). Clearly the concept of discounting is not exclusively financial. Torgerson and Rafferty (1999) argue that health benefits unlike wealth cannot be invested to prevent future detrimental health outcomes. They describe smokers who value future health benefits lower than non-smokers. The desire to enjoy current pleasurable benefits can be observed in differential pricing of goods and services. For example, people may be willing to pay the increased cost of a newly released DVD rather than waiting for the price to fall. This is also supported by development theory and egocentrism, whereby young people consider themselves to be unique and invincible (Skidmore and Hayter, 2000).

The optimism bias of it will never happen to me, was expressed by most interviewees. The positive values of pleasure versus the negative values of risk can also be observed in the following interviews. In some cases the negative test also reinforced their optimism:

*“I didn’t think I would have but I was just doing it because, when you go out with your friends you do stupid things” (F 22, p. 4 - 5).*

*“There could have been a possibility of it being there (Chlamydia)... I mean there was a possibility there but you always think well it could be a slim chance but not really” (F 1, p. 1 - 2).*

*“I was thinking, oh well I’ll do it and get me result but I know I haven’t got it. ... I thought well I haven’t got Chlamydia I don’t have to use condoms, it wasn’t important” (F 2, p. 2,3 and 9).*

The following interviewee did not use contraception or condoms and did not consider the risk of pregnancy or infections. This has resulted in an unplanned pregnancy and the birth of her daughter. However, her reason for screening was to prevent infertility and the perceived negatives may have outweighed the positives, leading to screening:

*“Because I heard it can stop you from having children (reason for testing) ... me and my friend had just been talking about screening” (F 16, p. 1 - 2).*

Pregnancy and Chlamydia risk were known to the following interviewee who had unprotected sex with her regular partner, but she did not think she would become pregnant. When she discovered her boyfriend had been unfaithful she was screened for Chlamydia and sought oral contraception. This change in behaviour may be explained in the theory of planned behaviour where attitude is affected by affective-cognitive consistency; where her feelings (about boyfriends’ infidelity) and thoughts (risk awareness) become consistent:

*“No, it didn’t even cross my mind (other STI’s), since I found out, yes (used oral contraception since finding out her boyfriend was unfaithful), but not before... Obviously when I didn’t know... I didn’t really think about it (pregnancy) ...I didn’t think I would (get pregnant)” (F 12, p. 4 - 5).*

The intention to screen and protect oneself from infection and pregnancy may be explained in the doctrine of humanism and the theory of human motivation. According to Maslow's hierarchy of human needs, the physical and safety needs may have been compromised for the following girl and need to be addressed before moving towards the higher needs such as love and belonging, self-esteem and self-actualisation (Maslow, 1943):

*"Because he cheated on me again (reason for test) four of them (cheated with four girls), just to make sure I didn't have it but I have (reason for test)" (F 15, p. 2).*

Whilst many interviewees did not consider the risk of pregnancy or infection sufficient to alter behaviour, four interviewees were motivated to avoid pregnancy, although they had not considered other risks such as infection. Becker's (1997) theory of heroism may explain this, whereby the risk of pregnancy would be detrimental to their self-esteem:

*"Well I am aware of them (STIs) but I haven't really thought about them – my girlfriends on the pill" (M 17, p. 1).*

*"That's exactly what I done (considered pregnancy but not STIs), It's been brilliant (contraceptive implant) it's the best thing I ever done, I was on the pill from 14 and they got the implant in cos it (pill) was causing too many problems and remembering to take it was a nightmare" (F 2, p. 4).*

*"I'm on the pill, no (to condom use) and we didn't think we could have it (Chlamydia)" (F 5 and M 4, p. 5).*

It has been said that the response to teenage pregnancy is a barometer to social tolerance. Whitehead (2001) states that there is a complexity of sociological and psychological factors that stigmatise teenage pregnancy including moral strength, sound character and good parenting. This may be explained from a humanist perspective and the presentation of the self with the avoidance of deviant behaviour (Dijker and Koomen, 2006). However this behaviour is not consistent in all local areas. Geographically in County Durham and Darlington there is a mixture of urban and rural areas with some of the most deprived wards in the country (Office for National Statistics, 2011b). The north of the county has higher (national and regional) rates of teenage pregnancy leading to lower rates of abortion (Department for Education, 2011). Whitehead (2001) describes

factors affecting teenage pregnancy as employment, religion, accommodation, leisure, baby's father, education and family composition. Family composition and education were found to be primary themes of influence on early pregnancy and parenting, with teenage pregnancy reported through generations of families.

For some interviewees the negatives of an unwanted pregnancy appear to outweigh the positives of sex without contraception, and the use of contraception is the control. This may demonstrate an avoidance of what may be culturally considered to be deviant and may demonstrate geographic and economic differences.

Table 7 shows that Derwentside has the highest rate of under 18 conceptions in the county, but also has the lowest rate ending in abortion. A contributing factor may be early onset of sex (table 5). This research found that 18 interviewees reported sex aged 16 or under with a mean age of 14.6 years.

Derwentside is home to a disused steel and mining industry. There are known to be generations of families with mothers and great-grandmothers who were teenage parents themselves. Social psychology would argue that teenage parenting is accepted as a cultural norm influenced through the generations. Poverty and unemployment are not exclusive to Derwentside. Data showed that the more affluent inner city area with a large population of university students had the lowest rate of under 18 conceptions and a relatively large proportion that ended in abortion. There was no significant difference in religious affiliation in Derwentside that may have influenced abortion rates compared with the North East region. 84.2% of the Derwentside population are Christian compared to 80.1% in the North East, although this census data is ready for renewal (Office for National Statistics, 2001).

**Table 7: Under 18 conceptions by locality 2007-09 (Department for Education, 2011)**

Area of usual residence	Number	Rate	% leading to abortion	Change from 2007/09
England and Wales	122,572	40.3	49	-12.6%
England	115,079	40.2	50	-12.0%
North East	7,228	49.7	43	-9.0%
Darlington UA	298	52.8	52	-5.8%
County Durham UA	1,357	47.7	40	-8.4%
<i>Chester-le-Street</i>	120	41.0	43	9.4%
<i>Derwentside</i>	279	55.5	38	15.1%
<i>Durham</i>	149	34.8	46	-8.9%
<i>Easington</i>	313	52.8	41	-25.1%
<i>Sedgefield</i>	257	50.0	37	-10.8%
<i>Teesdale</i>	36	26.4	53	-33.7%
<i>Wear Valley</i>	203	53.7	41	-27.5%

### ***Behaviour change***

Thirteen interviewees had previously screened for Chlamydia and in some cases had three, four or more tests. Eleven of these interviewees diagnosed as Chlamydia positive had received a recent negative result, suggesting that screening does not influence reduced risk taking but is used to offset risk of infection. This was identified by 15 out of 25 interviewees who stated that they screen to offset risk. The ability to screen regularly appears to be considered to be within the control of the individual. This is reinforced by the national Chlamydia screening programme which advertises easy detection and treatment:

*“If you are sexually active and under 25 you should be tested for Chlamydia annually. The test for Chlamydia is simple – just one quick and painless test that you do yourself. You do NOT need to be examined!”*

*(National Chlamydia Screening Programme, 2011b)*

If we consider this in the context of the theory of planned behaviour, attitude, perceived behaviour control and the subjective norm are factors that would all affect the behavioural intention to screen. The screening programme facilitates the intention to make a positive health choice by enabling individual control, supporting health seeking attitudes with the benefit to the individual and provides a sense of acceptability and normalisation, influencing the social norm.

Seven interviewees discussed inhibiting factors to behaviour change that would reduce sexual risk taking. This included the reliance on partner to supply and/or use a condom, not wanting to use a condom, too embarrassed to negotiate condom use with partner and not needing to use a condom as infection is easily treated:

*“They’re not bothered if they get it because it is easy to treat” (F 19, p. 19).*

*“You don’t think about it do you (using a condom)” (F 20, p. 4).*

Some interviewees stated that they would change their behaviour in the future and protect themselves, although inhibiting factors such as being drunk or not having a condom were given as reasons for this intention not to be sustained (alcohol and sexual behaviour has been discussed in chapter 10). The behavioural approach explains this as a low perception of behavioural control predicting that risk taking would not be reduced. The following interviewee had a negative test one month before her positive test:

*“I was drunk, that’s why I have got it (Chlamydia), otherwise I would have used extra precautions... You don’t have to panic, some people think if you have got an infection it’s like, oh, big course of medication, my mam is going to find out or whatever, but when you know it is only one thingy of treatment, you are like, well I can go, if I have got it, it can be all over and done within a day, it’s confidential, so it is not as if you are on weeks of tablets, it’s just one day” (F 21, p. 5 - 8).*

Rotter (2011) described this through personality theory as having an external locus of control with individuals believing that risk behaviours are out of their control. Wallston and Wallston (1978) refer to this as ‘chance’ - one of the three multi-dimensions of the locus of control beliefs (Wallston et al., 1978). However, as previously discussed Fox (2011) believes that this ‘alcohol expectancy’ is used to excuse the behaviour of the

individual. Many interviewees stated that treatment of infection was within their control, which appeared to have supported the belief that they do not need to alter their sexual behaviour:

*“You can easily get rid of it (Chlamydia)” (F 20, p. 18).*

*“Yes I carry them around with me (condoms)... Yes (thought he would be infected-this is his fourth test in 12 months) cos I’d had a few partners...(when asked about considering risk and future partner he replied -) not really” (M 11, p. 3 - 4).*

The following girl had a positive Chlamydia test one month before her negative test. She reported using condoms except when drunk although intended to use them in the future:

*“I always do, but obviously when you are drunk and you are out, and lads just take advantage of you. That is what happened to me when I got it. He just picked me up and took advantage of me when I was mortal... And I am still going to use them because you just don’t know. I know someone who was doing the pill but she still got pregnant so I am still going to do it – it stops extra diseases and that” (F 22, p. 7 - 8).*

The intention to modify future behaviour and reduce risk taking was expressed by most interviewees, although when probed this was probably not sustainable. Even in those with a previous positive test (F 16) who may have been motivated by direct experience:

*“Wear a condom? I don’t know, (when probed further) no” (F 16, p. 8 - 9).*

*“No, cos you can go and get a test after” (F 9, p. 8).*

*“No cos when you’ve been drinking you just go ahead and do it anyway” (M 8, p. 8).*

*“In the future it might be out of habit that I wouldn’t use one (condom)” (M 4, p. 13).*

Even after three positive tests in the previous 12 months this girl continued to have unprotected sex with a regular partner and casual partners:

*"It's made me stop and think, stop going with the same people, stop drinking, drink less (and when asked if she would change her behaviour she replied) don't know" (F 25, p. 9).*

The following interviewee was mainly concerned with pregnancy risk (he had two unplanned pregnancies) and was hoping to have a male contraceptive injection. He had two tests in the past 18 months, the first negative and a recent positive result and a history of unprotected sex. Whether considering pregnancy risk or risk of infection his solutions engage the notion that his behaviours do not need to be changed:

*"I would ask them if they were on the contraceptive pill first then if they were, then I would ask them do you want me to use one or do you not want me to"... "Well I'm starting to now though (test after sex) this is my intention for the future" (M 24, p. 3 and 19).*

As with the previous girl (F 25) the following interviewee reported unprotected sex and being tested every six months. For both these girls access to screening and treatment remove the need to change behaviour. As discussed earlier in the chapter the following interviewee considers that more serious implications might prompt behaviour change. However, she wouldn't recognise this unless she was in that situation. Therefore, she would have to experience a serious situation in order to be able to mitigate any degree of control for subsequent situations. This direct experience has been found to create more stable cognitions in the individual and is referred to as 'learning from mistakes' (Christensen and Mikkelsen, 2008).

*"It is great that it can be treated so quickly but I think that might be people's mind set - it's a common one, easily caught and easily treatable. So I think when people think about it in that respect again its going back to that risk, I think that what it comes down to thinking - well you catch it cos you could do but it'll be treated and it'll be over and done with. It wouldn't be until you got something more serious that I think maybe that well would that change I don't know? You wouldn't really know unless you were in that situation" (F 1, p. 9).*

The intention to use condoms following his first Chlamydia test was not sustained over time by the following young man although he considers his positive test to be an exception. He had a negative test 12 months ago and a recent positive result. Temporal

stability describes the constant cognition over time, in this case to always have protected sex. This requires strong attitudes and the behavioural intention and the perceived control must also remain constant. In this case the control fluctuates according to whether he is driving or drinking as he keeps his condoms in his car:

*“Yea, I felt as though I needed to be safe from then on, that I’d have to start using condoms... It was a one off kind a thing when I caught that... Its having them at the time, I mostly have them in the car but then if you’re out drinking then and things like that you haven’t got them” (M 3, p. 4 - 6).*

Azjen (1991) suggests that individuals with an external locus of control believe that negative events are not related their personal behaviour and as such are beyond their control. This can be observed in the following girl who had a history of unprotected sex and screening over a 15 month period. She had three previous Chlamydia tests which were all positive. She blames her unfaithful boyfriend on her health status:

*“He just goes with too many people” (F 25, p. 1).*

Similarly the following accounts place the responsibility to reduce the risk of infection by using condoms on partners:

*“Everyone that I have been with has asked me ‘do we need to use one’ and I have said no I am on the pill, so I should have used one, but they all ask are you on the pill” (F 19, p. 20 – 21).*

*“Well I am aware of them (STIs and pregnancy) but I haven’t really thought about them, my girlfriends on the pill... Yes (intention to be safe in future) I will get tested regularly” (M 17, p. 3 - 4).*

Poor sexual self-efficacy (self-control) for example condom use, and low sexual self-esteem (self-worth) have been linked to sexual risk taking (Seal et al., 1997). The reluctance of women to use condoms due to embarrassment and difficulty in discussing this with partners is not uncommon (Thorsén et al., 2006). This can be compounded by the stereotyping (real or perceived) of others.

In a study using four focus groups of girls, Thorsen et al (2006) found that rumours were often spread about both boys and girls. Issues such as a boy can be considered to be macho if he has multiple partners, whereas a girl could be branded a slut if they were blonde and wore pink clothes. The humanistic and social approaches explain the importance of self-esteem and avoidance of low self-esteem to the goal of self-actualisation that may influence socially acceptable behaviour. Walby (1990) describes this 'slag or drag' phenomena as a sexual double standard. This phenomena was identified in the following account where two friends each had three tests in the previous four months. Despite their positive results they described their inability to negotiate condom use with their partners:

*"And they say 'Oh I don't like using condoms' and you feel crap saying I want to in case you have got something, he will say 'so you think I have got something' and you will end up falling out. So it's best just to leave it, do you know what I mean?... I tend to think that the male should have the condoms as it is going on them, I know it is protecting me as well but I tend to think if he wants it he should provide it (when asked if she was a willing partner) well sometimes yes, but if I take a condom with me it's like they think I am going there, so that's why I don't like to take a condom with me because they will expect sex and some days you just don't want to" (F 19 and 20, p. 4 - 6).*

*"It's like he might think you are trying to say something if you say let's use a condom, I know you can say it and that but when they know you are on the pill they might be thinking what do you want to for, do you think I have got something" (F 20, p. 20).*

## **Conclusion**

Despite the media campaigns that raise awareness of increasing rates of sexually transmitted infections and unplanned pregnancy, the young people in this study either perceived themselves to be in control of these risks or did not consider themselves to be at risk – even following a positive result. Risk takers who are aware of their risk may be more likely to display risk taking behaviour in the belief they are in control. This is supported by the theory of homeostasis, where the individual will remove the need for protective factors (such as protected sex) in the belief that they have offset their risk (regular screening). Optimism bias, the belief that it will never happen to them, was also a significant factor in risk taking behaviour and may also be reinforced with a negative result. All of these concepts remove the need to alter behaviour. Therefore, public

health interventions must consider the value placed on the behaviours themselves and the cultural context in which they occur.

This study has shown that a significant number of interviewees offset their risk of infection using screening as a method to maintain their control over the situation. This removed the need to alter risk taking behaviour as demonstrated by the number of interviewees who had repeated tests – the behaviour remains the same and the homeostatic tool (screening) is used, as required, to maintain control. The more that a situation is considered to be within the control of the individual, the more it is considered to be low risk (Weinstein, 1987).

This analysis may explain why, despite having a local programme since 2004, neither rates of sexually transmitted infections or associated diseases have had a significant reduction. Simply as a screening programme this appears to be effective in infection detection and treatment, which is demonstrated in the recent local high volume screening achievements. This supports the risk taking activities that are important to the individual.

The long term health benefit of behaviour change does not outweigh the short term benefits of the social world in which young people live and regulatory initiatives used by health professionals appear irrelevant. Voluntary risk taking can provide pleasures that underpin selfhood: an important factor to the developing young person (Lupton and Tulloch, 2002).

Developmental theory describes the importance of the belongingness afforded by peer groups that enable exploration of self-identity. Most interviewees did not feel that they were subject to peer pressure and this was considered in a negative context, whereas most interviewees described their experiences, which I have referred to as herd behaviour such as social drinking patterns in an acceptable context. Herd behaviour that was acceptable was also considered to be within the control of the individual. The cause of risk taking, such as cultural expectance and its effect such as self-identity, need to be considered as a normal part of development and the benefits that it gives to the young person such as self-identity, should not be underestimated.

The principles of the national programme to screen opportunistically is effective and acceptable by providing control to the individual to mitigate risk rather than prevent it.

This deficit model is a pathogenic approach to health and wellbeing that focuses on problems, needs and deficiencies, and provides services to fill the gaps and fix the problems. However, this can disempower and create dependency and will not create long term sustainable behaviour change. This study has found that Chlamydia screening does not create a change in sexual risk taking but can offset the associated risk. The individuals' infection management strategy of regular screening may explain the continued rise in rates of sexually transmitted infections.

## **Chapter Twelve: Discussion of the core story**

*“I hate to advocate drugs, alcohol, violence or insanity to anyone, but they’ve always worked for me”*

*(Hunter S Thompson, 1935-2005)*

### ***Introduction***

This chapter will consider the core story that has emerged from this research and will discuss the key findings of this study in relation to risk taking and the concept of edgework.

The developing theory of edgework is focused on the individual control to maintain pleasurable experiences. This research supports this concept and Chlamydia screening was found to be a significant factor that provided control over risk taking behaviours.

Chapter five set out the aim of this study which was to generate theory regarding the risk taking behaviours of young people accessing the local Chlamydia screening programme and to identify the factors that affect such behaviour, in order to make recommendations for public health practice. Chapters’ seven to 11 have discussed the categories that emerged from this study. How young people make sense of the world and others, individuated versus deindividuated behaviour, assessing risk and the factors that affect behaviour have been discussed.

This research has found that risk taking is a normal part of the development of young people and assists them to explore their world and find their own identity. Many factors contribute to the perceived control of the individual, including their sense of knowing others. The Chlamydia screening programme is valued for the control it gives to the individual and is used to mitigate against risk taking behaviour. This removes any need to change the behaviours.

The perceived awareness of risk may only provide a sense of control over a situation rather than a reduction in risk taking behaviour. Behaviours that are considered to assist in the development of the self and the sense of belonging far outweigh those considered as healthier choices. This includes safer sex and alcohol consumption.

### ***The core story***

DiClemente et al (1996) believe that risk taking in adolescence is normal and voluntary and follows a developmental trajectory. They state that adolescent development requires autonomy from the family, independence, peer importance, sexual awareness, identity formation and physiological and cognitive maturation. Risk taking behaviours have important functions and meanings required for the normal development of the individual. This may explain the behaviours discussed in this research, although it must be noted that what is normal at one stage for example sex at age 18 may be abnormal at a younger age. Alcohol consumption and binge drinking leading to, or with the expectation that the individual will have sex has been revealed through this research.

Henningsen and Henningsen (2010) believe that the accurate perception of risk is a necessary pre-requisite to behaviour change. However, this study has shown that an awareness of risk does not necessarily lead to a reduction in risk taking. For example, all of the young people in this study who believed they were aware of safe drinking limits described harmful alcohol consumption.

The term edgework was originally used by the American journalist and writer Hunter S. Thompson who used this to explain a variety of human experiences, the most infamous being his experimentation with drugs. Thompson provides detail of edgework by expressing the essential character of the experience, often working on the edge between life and death, consciousness and unconsciousness, or sanity and insanity when accounting for his personal experiences with alcohol and drug use (Thompson, 1971):

*“We were somewhere around Barstow on the edge of the desert when the drugs begun to take hold...Suddenly there was a terrible roar all around us and the sky was full of what looked like huge bats, all was going about a hundred miles an hour to Las Vegas. And a voice was screaming: ‘Holy Jesus! What are these goddam animals?’“*

*(Thompson, 1971 p. 3)*

He was famous for his Gonzo journalism with him as part of the story, providing a first person narrative with no claim to objectivity. He provided the detail of edgework through the essential character of the experience where he participated in the extreme of the risk taking experience (working on the edge). It is the control over and the pleasure

derived from the experience that is valued. Following his alcohol and drug fuelled journey through the Nevada desert and having ripped off a Las Vegas hotel in a potentially terminal drug episode, he was invited to cover the National District Attorneys' Conference on Narcotics and Dangerous Drugs. He writes:

*"There was also a certain bent appeal in the notion of running a savage burn on one Las Vegas Hotel and then instead of becoming a doomed fugitive on the highway to L.A. – just wheeling across town, trading in the red Chevy convertible for a white Cadillac and checking into another Vegas hotel, with press credentials to mingle with a thousand ranking cops from all over America, while they harangued each other about the drug problem. It was dangerous lunacy, but it was also the kind of thing a real connoisseur of edgework could make an argument for"* (Thompson, 1971, p. 80).

Reith (2005) observes how advertising uses edgework as part of a product's allure to young people. He describes that whether selling Mountain Dew, Hummer automobiles or Columbia winter wear, edgework becomes the central association for the product. He notes that risk-taking is: "frequently utilised in commercial advertising and portrayed in the media as a heroic act, with images of courageous individuals engaging in dangerous activities used to promote products that offer consumers excitement and escape" (Reith, 2005, p. 233). Edgework becomes a means of freeing oneself from social conditions that deaden the human spirit and the activity of edgework becomes a way to rise above the social demands, controls and regulations and provide a sense of self (Lyng, 2005).

Cooley's (1902) observations on the 'looking glass self' describes three principles that are used by the individual to create a sense of self: how we imagine our appearance to others; how we imagine others to judge us; and how we feel about those judgements are used to develop personal identity. The process of de-individuation through group Chlamydia screening and screening for incentives is perceived to alter the image that others may have of the individual from unacceptable to acceptable. This was observed in 12 of the young people in this study who screened as a group and a further six who screened as a couple. It is the humanistic view of a sense of belonging which makes this process acceptable to the individual and their perception of how others see them. Erikson describes this search for identity within a peer group as 'clannish' (Newman and Newman, 2009). The group identity then provides the framework to form self-identity in the later stage.

Life transitions require a move from family to peers which can alter behaviour and risk taking. This can result in a movement from family values to the more individuated value of sexual pleasure. Whilst most of the young people felt that they had not been subjected to peer pressure most described herd behaviour in their drinking patterns and social lives.

Chlamydia screening provides a covert opportunity for a health seeking behaviour, although as a solution focussed approach to ill-health it is insufficient to create sustained change. More than half of the young people in this study had recent multiple Chlamydia tests and 11 who had received a recent positive test had a previous negative result. Most had very little or no increase in knowledge as a result of screening, even for those receiving one or more positive results. It was found that leaflets and posters were unlikely to be used, particularly outside of core sexual health services, whereas the radio or television appeared to be passively acceptable. Chlamydia screening appears to be used as a method of control by the individual that enables them to experience that which they value such as drinking and sex.

The value of Chlamydia screening to the service user was reported to be the easy and convenient methods used. Even those who had experienced the interface with health providers by attending clinics had no increase in knowledge or change in sexual behaviour and most did not have any desire to reduce risk taking in the future. The value of the experience outweighed the risk and Chlamydia screening merely provided an element of control to mitigate this.

Lyng is a Professor of sociology in Wisconsin. He has published work on the sociology of risk and developed Thompson's work further (Lyng, 2005). As a jump pilot and novice sky diver himself he conducted a five year ethnographic study of sky divers using methods of observation, semi-structured interviews and document analysis (Lyng, 1990). He found a common theme in that all edgework activities posed a threat to the physical, emotional or ordered life of the individual. He describes edgework as a way of understanding the problem of negotiating the boundaries between chaos and order. This involves activities designed to challenge the physical or mental abilities of the individual. These activities are polarised from everyday life and takes the individual away from the mundane.

Drawing on the experiences of sky divers and motorcyclists, Lyng believes that edgework offers an escape from boredom and lack of autonomy through stimulating activities that provide the individual with a sense of personal control, although in reality this perception of control may be illusionary and temporary (Lyng, 1990). In a series of qualitative interviews with previous drug users Zajdow (2010) recalls a transcript to describe this concept:

*“If you're living in a world where there is white noise and then one day the white noise stops, it's an extraordinary experience (So the experience was of going from something anxiety producing . . . to feeling completely relaxed, completely at peace)”* (Zajdow 2010, p. 224).

Risk taking behaviour in young people has been found to occur in plurality (Independent Advisory Group on Sexual Health and HIV, 2007). Alcohol consumption and unprotected sex have a tendency to be inter-related with what has been considered by some as negative outcomes (Newbury-Birch et al., 2009). This research has discussed interviewee accounts where most individuals describe how alcohol leads to sex which is often casual and unprotected. In fact there appeared to be an expectation by interviewees that this would be the case. Fox (2011) calls this alcohol expectation and believes that young people use this as an excuse for their risk taking behaviour, in other words it is the alcohol that makes them behave in a certain way.

Edgework has been used to explain the experience of drug and alcohol use as something that is valued by students (Workman, 2009). The theory of edgework rationalises any adverse outcomes experienced. Rather than believing that drug use is harmful, the blame for tragedy is placed on the poor skills of the user. This conceptualisation removes any need to control the substance, but requires the substance user to be more skilled. Most (20 out of 25) young people in this study said they were more likely to have sex when drunk and they used alcohol to give them confidence and enjoy their social world. Alcohol creates pleasant feelings of relaxation and well-being for young people, and can increase their perceived control in the social environment. Alcohol use was reported to help in getting your bottle, and to facilitate the experience of meeting, socialising and negotiating sexual encounters. For young people alcohol can help with their life transition and for some it can expand upon their identity exploration (Hunt and Guindon, 2010). The findings from this study suggest that alcohol

consumption may assist the individual to work on the edge of relationship and sexual exploration.

Tulloch and Lupton's (2003) *'Risk and Everyday Life'* argues the importance of deliberate risk taking and that edgework is not only the domain of the more serious edgeworkers, such as skydivers, but that mild forms of edgework are widespread.

In a study of 74 people Lupton and Tulloch (2002) found three major discourses of risk taking which they identified as self-improvement, emotional engagement and control. These concepts describe the pleasures and benefits of voluntary risk taking and are underpinned by identity and self hood. They conclude that successful voluntary risk taking can provide the individual with a greater sense of control and accomplishment. In 2004 Lyng responded to cultural criminologists for a 'criminology of the skin' describing the importance of the experience of crime. He argued that edgework is embodied in criminal activities and represents a form of escape and resistance, and describes the control demonstrated by street robbers who meticulously plan and prepare their crimes (Lyng, 2004).

A reinforcer of being in control is risk compensation or homeostasis which is known to be linked to sexual risk taking (Brewer et al., 2007). Rather than altering risky sexual behaviour more than half of the young people in this study compensated for this through regular screening. They appear to be reassured that this action would give them the control to deal with an infection should they need to, thus negating the need to change behaviour or prevent infection in the first place. Some also discussed homeostasis and offsetting their risk from excessive alcohol consumption by limiting this to once a week or using spikies to avoid being drugged and assaulted. Weinstein (1987) explains that the more a hazard is considered to be preventable, the more it is considered to be a low risk.

Edgework relies upon the individuals' perception of their control, which is demonstrated in the following account by an ex-heroin user who recalls a previous experience. Despite being disgusted by the effects of her friends' misuse she does not consider a need to change her own habit as she perceived that she was in control of her situation. Honey is in her 50s and had been drug free for 20 years:

*"I went to score at Jerry and Sally's place, but when I got there I came across this totally weird scene. There was blood all over the floor mixed with broken glass. The two of them were lying on their mattress naked, streaked with blood themselves and moaning. They said they needed my help to score because it seemed they ran out a few days before and had no money. They started scouring the whole flat for any dregs left over, checking out every spoon, every filter, anything. They would retreat to the mattress and then crawl out and try again. The blood came from literally crawling over broken glass from ashtrays and drinking glasses, but they didn't notice. It was just disgusting, here were people crawling over broken glass, disgusting naked bodies smeared with blood. I thought it was disgusting at the time, but not enough to stop me using (heroin)".*

(Zajdow 2010, p. 225)

The phenomenon of perceived control is explained in an ethnographic study of sky divers by Laurendeau (2006). He found that in an adverse event such as death the individual would blame the victim. This reinforces the notion that the activity is not dangerous allowing the individual to continue in the belief that they can control their own risk environments. Failing that the trump card was identified as fate - when your numbers up its up. Either way the individual is allowed to continue their activity without a need to change. As Lyng (1990) explains the perceived control of the individual makes edgework less threatening and lends itself to young adults who are particularly susceptible to this illusion.

The belief that it will never happen to me, was demonstrated by most of the young people, with the expectancy of a negative Chlamydia result and the belief that they are in control of their risk taking behaviours. This control if challenged with a positive result appears to result in affective cognitive incongruence, which for most created feelings of shock and anxiety. This is described as the 'optimism bias'. Weinstein (1987) argues that this is not exclusive to young people. In assessing risk judgements on 32 different hazards he found that the optimism bias was not limited to a particular age, sex, educational or occupational group. He found that the individual will use their past experience to determine their future vulnerability, with the calculation (often incorrect) that if a problem has not yet appeared it is unlikely to arise in the future. The optimism bias is also reinforced by the perceived preventability of the hazard.

The optimism bias can be reinforced by mental shortcuts which give a sense of control to the individual. These include the priming effect, first impressions, stereotyping, the

halo effect, sexual imprinting and familiarity which lead to a feeling of knowing others - even complete strangers. These are used in order to construct the social world into something that makes sense, which creates feelings of safety and trust of others. More than half of the young people in this study experienced unprotected sex with a new or current partner based on the assumption that they knew them.

There is a focus of some psychological models that it is the rewards that motivate risk taking. Gross (2005) uses a humanistic approach in referring to risk taking as a solution to self-identity in adolescents. However, Lyngs' work differentiates that it is the 'experience' in the activity of edgework that is used to find a sense of self rather than the end reward (Lyng, 1990).

Lyng (1990) describes two main models of risk taking behaviour as 'personality predisposition' and 'intrinsic motivation'. Intrinsic motivation is concerned with a range of factors including psychological, physiological and neurological and also includes sensation seeking (Lyng, 1990). The polarisation of personality believes that behaviour is consistent according to a personality that is fixed and therefore attempts to predict the inclination to engage in risky activity. This is represented in Jung's theory of extrovert versus introvert and Freud's narcissistic versus anaclitic: the former of these have been related to sensation seeking (Lyng, 1990, Gross, 2005).

Arnett (1994) states that sensation seeking is related to a variety of risk taking behaviours including alcohol and sex, and involves the willingness to take personal and social risks for the sake of the experience. Zuckerman (1994) suggests that this is a trait adapted for survival and reproductive fitness with sensation seeking and sensation avoidance extremes of behaviour. He also links sensation seeking to impulsivity. Lyng (1990) makes the distinction between sensation seeking and edgework in that sensation seeking is more concerned with a gamble whereas edgework is perceived by the individual to be a controlled action. The difference between sensation seeking and edgework is that edgework is dependent upon successful risk taking which enables group membership and is focussed upon the avoidance of disaster (Workman, 2009).

The message from the national Chlamydia screening programme is that one in 10 young people have Chlamydia. This has been conceptualised by some interviewees that nine in 10 people don't have Chlamydia. Therefore this is not an important health issue. Also the meaning of the word common (infection) has been interpreted as not

being very important and easily treated. If we consider how a young person may consider risks associated with unprotected sex using the principles of the health belief model and the theory of Edgework, this may explain risk taking from an individual perspective (Table 8):

**Table 8: Considering Chlamydia infection using the Health Belief Model and the theory of Edgework**

<b>Question</b>	<b>Health Belief Model</b>	<b>Edgework</b>
<b>Am I susceptible to infection?</b>	<i>Statistically, probably not</i>	<i>No, I am in control</i>
<b>Is this severe?</b>	<i>It is common and easily treated, therefore not really</i>	<i>Possibly however I am able to mitigate against this</i>
<b>Barriers to behaviour change?</b>	<i>Yes – using a condom, embarrassment, reducing number of casual partners, moderate alcohol intake, individuation not conforming to the social norm, loss of safety</i>	<i>Not required I can mitigate against the risk</i>
<b>Benefits to behaviour change?</b>	<i>Is the bird in the hand worth two in the bush? Easier not to change.</i>	<i>No, this is the behaviour I want</i>

### **Conclusion**

The Chlamydia screening programme does not support complex behaviour change, but provides control to the individual to maintain the pleasurable behaviours and experiences that they value. This finding supports the developing concept of edgework, in that the young people in this research valued pleasurable experiences such as social drinking leading to sexual encounters – screening merely enabled control over the risk taking behaviours by maintaining homeostasis. Other elements of edgework were also found to provide control over pleasurable experiences such as using spikies in drinks and drinking in groups.

Sharland (2006) states that politicians are increasingly concerned with the deviant risk taking behaviours of young people and how to prevent or reduce them; although this appears to be discordant with the actual values of young people. The aim of the national Chlamydia screening programme and the political expectation to change behaviour is aspirational and unable to meet the government definition of value for money.

Risk taking is a normal part of the development of young people (DiClemente et al., 1996). The perceived awareness of risk may only provide a sense of control over a situation rather than a reduction in risk taking behaviour. Behaviours that are considered to assist in the development of the self and the sense of belonging far outweigh those considered as healthier choices. This includes safer sex and alcohol consumption.

There appears to be a general silence from the public health perspective on the value placed by the individual on voluntary risk taking particularly in relation to pleasure (Zajdow, 2010). The Department of Health strategy 'Commissioning Interventions for Reducing Alcohol Related Harm' (Department of Health, 2009c) and the subsequent review by the National Support Team (Department of Health National Support Team for Alcohol, 2011) both focus on reducing risk taking. The aims and principles of the 2001 'National Strategy for Sexual Health and HIV' (2001b) is to tackle emerging threats to sexual health.

The Independent Advisory Group (IAG) review of the national sexual health strategy in 2008 adopted a medicalised approach to sexual wellbeing which they defined as the absence of sexual difficulties and sexual violence (Medical Foundation for AIDS and Sexual Health, 2008). The subsequent government response to the IAG review prioritised sexual health as a public health issue and recognised the link between the alcohol and sexual health agendas ( Department of Health, 2009d). Recognising the plurality and complexity of risk taking is important to understanding the behaviours of young people. Lack of knowledge, confidence to resist pressure, poor access to advice and support, and low aspirations are all issues identified in the 1998 teenage pregnancy strategy and the strategic update 'Teenage Pregnancy Strategy: beyond 2010' (Department of Health and Department for Children Schools and Families, 2010). Dahlgren and Whitehead (1991) describe this as a social ecological model of health where individuals are placed at the centre surrounded by influences on health that can be modified. The first layer is personal behaviour and ways of living that can promote or damage health and are affected by friendship patterns and the community norms. The next layer is social and community influences and the third layer includes structural factors such as housing, working conditions, access to services and provision of essential facilities. These layers demonstrate the convoluted factors affecting personal behaviours.

Rather than attempting to change the behaviours of young people, strategies should adopt an asset-based approach to health and focus on protective factors that can reduce adverse outcomes. Kegler et al. (2003) adopted an asset-based approach for preventing teenage pregnancy. This work focussed on building protective factors or assets, such as employment and supportive social and physical environments. Gilligan (2000) refers to this as resilience - to improve the outcome of a negative situation.

## **Chapter Thirteen: Discussion and conclusion**

### ***Introduction***

This chapter will outline the key learning points for the national programme. This will reflect upon the aims of this research, the methodological issues that were encountered and the findings that were revealed. This will present my reflections, conclusions and recommendations.

### ***Key learning points and implications for policy and practice***

The five core categories identified from the data that became the conceptual framework for this research identified phenomena that provide a number of key learning points which have implication for policy and practice. These will be discussed in the order that they were presented in this thesis.

### ***Transfer of knowledge and methods of communication***

Despite the availability of health information via leaflets, posters, television, radio and websites, it was found that most young people (21/15) had no increase in knowledge following access to the screening programme and their risk taking behaviours did not change as a result of screening activities. Young people valued the programme for the quick and easy methods used to test and treat. They did not want health promotion interventions and no-one requested a change to the service delivery. Informal methods of communication such as texting were popular because of the control that it gave to the individual as to how, when and where they received information. The value of chlamydia screening to young people must be recognised and the national programme assumption that behaviour change can be created through screening interventions and programme literature must be reconsidered. Unless this perspective is incorporated into Chlamydia screening commissioning and policy, the national programme will continue to be a tokenistic behaviour change model of health protection that will disempower young people who do not share the values that underpin the political rhetoric.

The national messages that one in 10 young people are infected, and that infection is easily detected and managed, was interpreted by some that 9 in 10 young people were

not infected – in other words they were probably not at risk. They also considered that this was not an important health issue as they were able to easily manage this if needed and descriptions such as common infection were perceived as not being important. The virtues of long term health benefits are lost against the short term benefits of pleasure and health education literature is not relevant to the context and social values of young people. The NCSP need to consider the key messages used to promote screening using the young people themselves to portray in real terms the value of the service. A greater understanding of what young people want and what influences their behaviour needs to be understood by the government and used to inform national strategy before this can be translated to local commissioning.

### ***The screening process***

High volume screening has led to poor screening practice that will increase health inequalities. This research found that less than one third of the young people screened (2009 - 2010) accounted for more than a half of the tests submitted, with up to 14 tests submitted by one person in that year. Repetitive screening of easily accessible, yet low risk populations such as university students has assisted local providers to achieve national targets however has led to poor screening practice and a dilution of positivity rates that are not economically viable (4.9% unpublished local data). The introduction of a diagnostic rate of at least 2,400 per 100,000 population (2012 2013) needs to be supported with a realistic screening coverage and an expectation that mainstream providers such as termination services, GUM, pharmacies and GPs deliver a significant proportion of the target. This will enable local screening services to concentrate resources and reduce the steepness of the social gradient in health with actions that are universal but with a scale and intensity that is proportionate to the level of disadvantage (Marmot, 2010).

The results of this research have led local commissioners to propose that the screening service achieves a diagnostic rate of 2,400 – 3,000 per 100,000 population and a coverage of 35% inclusive of non-screening programme activity. There will also be a commissioning expectation that 60% of screening is performed by mainstream services. The repetitive screening of individuals and low-prevalence groups should be monitored by the NCSP. Local data such as postcode information that are nationally reported should be mapped against the socio-economic determinants of health, such as deprivation, in order to assess the impact upon health inequalities.

This research showed that young people were either screened opportunistically or as a result of others which included advice from friends and partners or as a suggestion from health professionals. Eleven young people screened opportunistically at events and all said that they screened for the incentives. A comparison of the local quarter three data for 2009 and 2010 suggested that the financial incentive of £5 per test increased screening by more than 100%. Deindividuation through the use of incentives and mass screening appeared to be effective in achieving screening uptake, and were described as improving acceptability by providing a deflection to the reason for participation which relieved embarrassment. There needs to be a national reflection upon the way in which local resources are used to achieve targets compared to the value of screening to the service user. There is a dichotomy of what the people want versus what the government wants to spend and if this is not synergised the services will be ineffective and expensive.

The concept of asset based commissioning should be considered in the context of the wider determinants of health. The Public Health Outcomes Framework has four domains: improving the wider determinants of health; health improvement; health protection; and healthcare public health. Chlamydia screening has been included in the third domain 'health protection' (Department of Health, 2012). This may be in part because the NCSP is the responsibility of the Health Protection Agency. In order to provide resilience for young people there will need to be a paradigm shift in national policy and local commissioning from the current deficit approach to the wider determinants of health. This could build upon strengths within communities and seek to improve causes of the causes associated with ill-health such as unemployment. This will require a redistribution of financial allocations and alignment of national policies and departments.

### ***The concept of knowing***

The individual's perception of knowing a partner can have a large impact upon their risk taking behaviour. Eleven young people in this research had sex with a partner because they believed that they knew them. This knowledge was based upon factors such as appearance or information from friends. Knowing is often based upon cognitive methods used to process large amounts of information such as stereotyping, familiarity information or priming from others. These mental shortcuts that are developed are often

biased resulting in inaccurate perceptions. This process of labelling changes the unknown into the known and provided the individual with a sense of control and safety. Rather than delivering health improvement campaigns that aim to increase knowledge and awareness, local programmes should consider challenging common assumptions through media such as social norms that have the ability to cause the individual to decentre.

### ***Alcohol and behaviour***

This study has found a strong theme and consistency in response to harmful alcohol consumption, which was alarming, and may be a significant health issue that is a predictor for a rising trend in severe health consequences such as liver disease, in the future. Most young people described social drinking patterns and the practice of pre-loading. This involved drinking as much as a bottle of vodka before going out for the night. Affordability of alcohol was also overcome by pooling budgets between friends. In the 'Responsibility Deal' (Department of Health, 2011b) the government require clear alcohol labelling by 2013. This research found that more than half of the young people believed that they understood safe drinking limits, and all of those described dangerous drinking patterns. Therefore, the government should consider the cultural context within which drinking occurs against national policies and local licensing. Local resilience forums have the capacity to address health issues within a social context such as the use of alcohol serving venues for under 18s pre-nightclub opening times.

The relationship between alcohol use and sexual behaviour was also significant and predictive of risk taking, risk of infection and pregnancy, early onset of first sex, regret and sexual violence. Most young people stated that they were more likely to have sex when they were drunk, and a quarter of them reported regret following drunken sexual encounters. The average age of first sex was 14.3 and first alcohol 13.2 suggesting similar onset of risk taking. Alcohol myopia was described as getting your beer goggles on, which was a facilitator to sexual encounters. Alcohol expectancy was also described and stated as a factor likely to negate any reductions in risk taking behaviour. As risk taking such as alcohol use and sexual behaviour does not appear to occur in isolation there is a real need for national drivers such as the alcohol strategy, sexual health strategy and teenage pregnancy strategy to align themselves in a joined up, asset-based approach that considers risk and resilience.

Risk taking as a part of the transition to adulthood and the concept of valuing the experience of risk taking by young people was a theme evident in most of the research categories. Young people described how they will offset their risk rather than change behaviour such as using spikies in drinks. The fact that young people understand risk but do it anyway and the fact that the perceived benefits of risk taking appear to outweigh the alternative health gains are supported in these research findings. This research has demonstrated a clear link between alcohol consumption and sexual risk taking as well as the voluntary nature of risk taking. Alcohol use is a risky behaviour and a cause of other risk taking behaviours. The question that needs to be considered is what is the cause of the causes. This needs to be embraced by national policies in order that protective factors can be considered.

### ***Risk and sexual behaviour***

The main finding which is a new contribution to Chlamydia screening literature, was that Chlamydia screening was used as a risk strategy, that provided control for young people to continue the pleasurable behaviours and experiences that they valued. Most young people reported this and may explain repeated screening by individuals. This finding supports the developing theory of edgework whereby being in control of a situation and the value in the experience itself is important to the individual. The perception of being in control and optimism bias towards the likelihood of becoming infected was demonstrated by most and in some cases this was reinforced by a negative result. The national aim to facilitate behaviour change through the screening process is unrealistic. Screening is a method of detection and treatment of infection but cannot be considered alone as an effective method of behaviour change. Causing young people to become decentred from their personal fable such as having a positive result was found to have a significant impact on the worldview of this cohort and should be considered within the context of protective factors and individual risk resilience.

Awareness of risk does not reduce risk taking and lack of awareness does not lead the individual to seek or receive information if the perceived benefits of risk taking outweighs those of prevention. The bird in the hand is worth two in the bush. All individuals who had a positive Chlamydia result had a negative test in the previous 12 months. Whilst most young people said that they intended to change their risk taking behaviours, when probed they stated that they would not. Risk taking is part of development and using alcohol serving venues was important to interviewees to fulfil

their social networking needs, which included meeting partners and having sex. This needs to be embraced by national policies that are integrated and acknowledge the significance of the multiplicity of sex and alcohol risk taking within a cultural context.

This research found that young people consider themselves to be in control of their risk taking or that they are not at risk. Being aware of risk and being in control can increase risk taking. Offsetting risk through screening removes the need to change the behaviour. Therefore, Chlamydia screening is used by young people as a homeostatic tool to maintain behavioural control which explains why Chlamydia screening can only mitigate against the risk of infection but will not change the underlying risk taking behaviours.

### ***What I set out to do***

The following statement is extracted from a Doctorate module entitled Knowledge Domain Integration, that I wrote in 2009 and preceded this thesis:

*“Health screening, for example breast screening is successful in early diagnosis and the opportunity for health promotion and education and in promoting self examination. However, screening for Chlamydia is a method which alone is inadequate in ensuring sexual health. As an epidemiologically driven medical approach, screening in isolation can be criticised for ignoring the social and environmental determinants of health and reducing the opportunity for health promoting strategies. In order to participate in screening you must first of all be aware of that risk, in sexual health this would require a multi-pronged approach including public education”.*

Upon reflection I had made the flawed assumption that if individuals were aware of their risk taking and how this could be reduced that they would want to change their behaviour. I observed the dissonance between measurable health outcomes, such as rising rates of STIs and the marketing and increased accessibility of services such as Chlamydia screening. As my thinking developed I realised that I needed to understand risk taking behaviour and the factors that influence this in order to inform public health practice, and as this research progressed I became more focussed on understanding risk taking behaviour and the mindset of young people.

### ***How this was achieved***

This research has shown that there are many complex factors that influence the risk taking behaviour of young people. The detect and treat model of Chlamydia screening is valued by the young people in this study due to the control that is placed with the individual, with little reliance upon or interaction with a professional. This is in conflict with government opinion, in that screening for Chlamydia should provide the opportunity to change the risk taking behaviour of the individual. Observation of screening practice and interviews with service users found that the need to feel in control is important to young people. Control was found to be provided through a number of activities including the perception of potential partners, receiving information such as texting, screening to offset infection, accessing services and social drinking.

The NCSP expectation to deliver a behaviour change model of health care is idealistic in that it believes that if an individual is provided with the correct information and opportunities that they will create the required change. However, this does not embrace the influencing factors of risk taking, such as the need to belong in social groups and the need to take risks as part of the development of the self and the transition to adulthood.

Although many interviewees were aware of sexual health communications through written, radio and television media, there was no evidence of any increase in knowledge for those individuals who had experienced the screening process. The nature of public health material tends to focus on harm resulting from behaviours such as drinking, smoking, sex and drug-taking. There is no thought for the function that these activities provide to the individual. Therefore such campaigns become meaningless and without relevance for the young people to whom they are directed. There was no evidence to suggest that Chlamydia screening supported behaviour change, even in those individuals who screened repeatedly. This supports the theory that the value placed on the screening programme by individuals is as a method of control used to mitigate against their risk taking behaviour rather than to change it.

Peer pressure was not recognised by most interviewees and was perceived in relation to activities that were considered negative to the individual. However, herd behaviour was described within a culture of dangerous alcohol consumption and casual sex. The anonymity as part of a group may account for lowered inhibitions and feelings of less accountability for individual behaviour. Social constructivism dictates that our emotions are produced by cultures that influence our beliefs, values and social environments (Berger, 2005). Individuals demonstrated alcohol expectancy; that they would be more likely to have sex when drunk, blaming the effects of alcohol on risk taking rather than

recognise that this was personal choice. This concept appears to provide the individual with justification for their risk taking behaviour when drunk rather than take responsibility for it; which has become culturally acceptable with young people.

This research revealed the factors that influence risk taking behaviour such as the need to find self-identity in a culture of pleasurable socialisation. Drinking alcohol and having sex are part of development where young people choose to take risks and will attempt to control outcomes by offsetting the risks, for example regular screening for infections and only drinking once a week. The theory of edgework, which was discussed in chapter 12, is appropriate in explaining this phenomena. Therefore, it is not surprising that Chlamydia screening did not create a change in sexual risk taking and may have facilitated this behaviour by providing a method to offset risk. This theory was supported by the repeated screening of individuals who had minimal evidence of or intention to change behaviour. This may explain the continued rise in rates of STIs in recent years despite high volume Chlamydia screening.

### ***Difficulties and reflection***

I found that my chosen methodology, which was originally grounded theory was difficult to adhere to due to time constraints. As I commenced this PhD I was seconded to work nationally which required me to travel to London three times per week. This meant that during data collection I interviewed individuals when I could, and often couples or friends together, or multiple interviews in a day. Whilst I transcribed and reflected upon the observational visits individually I did not memo these, which Corbin and Strauss (2008) state would have given a more in-depth and conceptual account of the events. I chose to transcribe these interviews myself in order to review information. Clearly this is a time consuming process which resulted in batching of interviews, transcriptions and analysis (I later had an administrator transcribe these from a dictation machine). This is more aligned to a phenomenological approach which attempts to explain behaviours using the experiences and thinking of the individual, whereas grounded theory would theorise an explanation rather than simply explaining it. Therefore, although I started out with the intention to use grounded theory, this adopted a phenomenological approach at the interview stage, resulting in a mixed qualitative approach. As the data emerged from the interviews I needed to understand the core concepts that emerged in order to explain the context and influencing factors of risk taking. I became more focussed on understanding the mind-set of individuals in order to explain risk taking behaviour rather

than to develop theory for practice improvement. Therefore, phenomenology was an appropriate approach that enabled this.

At the start of each interview my role as a public health specialist, university student and commissioner of the service were explained to each interviewee. This may have influenced their conversations with me and upon reflection may have introduced respondent bias, in that they may have been more critical of the service if they thought I was not involved in it. With my previous background as a sexual health adviser, I do not feel that I would have conveyed a moralistic take on interview revelations regarding behaviour, through either my spoken or body language. Having trained in counselling I believe that I am aware of the impact that these behaviours can have on others although I did not have this independently assessed.

It is possible that I may have inadvertently portrayed my own priorities rather than that of interviewees in some of the questions used, for example asking about the possibility of using comedy to promote sexual health messages. This was a project that I had commissioned and not necessarily data that would have emerged from the interviewees had they not been prompted. I recognise that this is the first time that I have interviewed research subjects and that this may have demonstrated my lack of experience. I also feel that had my background been in a different discipline such as education or social work that my style may have been different and I would recommend that other new researchers consider doing this with a second researcher from a different discipline.

Upon reflection I could have focussed on the point at which risk taking commenced which was around the age of 13 years (alcohol and sex), in this study. Whether education, information and interventions such as social norms work had been experienced and the impact it made could have been discussed. Further exploration of this could have given insight and understanding as to whether there were or could have been protective factors that could influence this process and subsequent risky behaviours. The normalisation and cultural acceptance of some risk taking activities as opposed to others could also have been explored, which may have provided cultural context to the social worlds of these young people. I could also have explored the concept of alcohol expectancy and whether the expectation to have sex applied when individuals socialised but did not drink.

The desire and opportunities to not follow the herd could also have been explored further, although I have in retrospect attempted to highlight these difficulties, for example in the places where young people socialise and how they may pretend to consume alcohol with peers when they are actually drinking soft drinks. The ability and consequences of being non-conformist and the potential factors that may influence this could have been probed.

Although the importance of alcohol on sexual behaviour was discussed by the first interviewee I did not explore age at first sex and first alcohol use until interview six, which I should have done earlier and may have pre-empted more probing into onset of risk taking activities. In my understanding of alcohol consumption I should have asked each interviewee what their definition of a unit of alcohol was in order to give context to their explanations.

Risk taking appeared to be valued by the young people in this study, who will mitigate against negative outcomes rather than change the behaviour itself. I could have probed the concept of risk taking as a positive experience for the individual to understand the value of this for them and within their peer groups. The multiplicity of risk taking through other activities such as smoking could have also been explored. This would have added richness to the data collected from the perspective of the young people, rather than my interpretation through theory which I could have explored in further interviews.

In order to generate theory and recommendations for public health practice I could have considered the causes of the causes of risk taking behaviour. For example, if alcohol consumption leads to risky sexual behaviour what causes young people to drink? Also some young people mentioned that they restricted alcohol due to work or driving commitments – these protective factors could have been explored further. In December 2011 the Office for National Statistics announced that unemployment among 16 to 24 year olds rose to over one million, the highest since records began in 1992 and beating the record set only the previous month. The unemployment rate was highest in the North East, at 11.6% and lowest in the South East at 6.3% (Office for National Statistics, 2011a). Raising aspirations and opportunities is a key component to giving children a better start in life, whilst deprivation is linked to poor health outcomes, including the effects of drug and alcohol misuse, sexually transmitted infections and teenage pregnancy. If boredom or lack of employment opportunities is an underlying precursor to the causes of risky sexual behaviour is it realistic to expect the Chlamydia screening programme to change the behaviour of young people?

### ***Trends and explanation***

Risk awareness does not prevent risky behaviour. There is a tension between knowledge and awareness and individual behaviour. Even those young people who were aware of the risks of unprotected sex did it anyway. Many interviewees had multiple tests and those with a positive test had received a recent negative result. The value in Chlamydia screening is to offset this risk and enable the individual to continue the behaviours that have value for them, and many demonstrated optimism bias with the belief that it would never happen to them. However, receiving a positive result created dissonance between the individuals' optimism and reality; although it resulted in distress, it did not lead to a change in behaviour.

In 2010 – 2011 32% of young people screened had more than one test which accounted for more than half (57%) of all screening tests (Table 7, p. 141). Some young people had up to fourteen tests in that year suggesting that there is no change in health seeking behaviour other than screening to offset risk. This may also be explained by the service need to achieve high volume screening, using systematic repeated screening events in universities and colleges offering incentives. National data submission has allowed repeat screening of individuals every two weeks. From April 2013 this will change to every six weeks, which may create a reduction in the systematic screening of accessible populations that are at low and possibly no risk.

The perception by interviewees in their control of situations and experiences was a strong trend demonstrated by: screening (in groups or for incentives); receiving information (by text or radio marketing); having unprotected sex and offsetting risk with screening; alcohol consumption and offsetting risk by drinking weekly; and perception of knowing partners. Being in control provides a sense of safety that enables the individual to enjoy the experience.

In most cases Chlamydia screening did not increase the knowledge of the individual and although interviewees were aware of current media campaigns and information resources they had little effect. They did recall radio and television marketing as a passive experience which appeared more acceptable. However, the messages used by the NCSP appeared to give the impression that infection was not a significant threat as

it was easily detected and treated and in some cases the one in 10 young people have Chlamydia message was perceived as nine out of 10 don't.

Incentives have an influence on screening although there may be an ethical tension between providing an alternative motive to screen and using incentives to achieve high volume screening. Peer pressure was not recognised by most interviewees but there was a strong trend towards herd behaviour, for example group screening and social patterns of alcohol consumption. However, these were perceived to be within the control of the individual and positive, such as screening with friends rather than a pressure to conform.

Most interviewees described harmful alcohol consumption which was usually within a social context, such as drinking at friend's homes or in pubs and clubs, and getting drunk was associated with an increased likelihood of having sex. There was also a similar age to onset of drinking and onset of first sexual intercourse, mostly aged 16 years, reinforcing the assumption that risk taking occurs in plurality. There was a strong cultural expectation that alcohol consumption would lead to sex, which appeared to be a social justification used to rationalise the behaviour of the individual without any need to change it.

The drinks industry argues that alcohol is a legal product and therefore they should be allowed to market this and any restrictions upon this would have a negative effect on sales (Royal College of Physicians, 2010c). However, the regulation of the alcohol industry is subject to wide debate. Political interventions on alcohol use is often challenged by the alcohol industry. Increasing tax and reducing the availability of alcohol is considered an effective method of control. There is evidence to suggest that increasing tax on alcohol by 10% can create a 10 - 30% reduction in alcohol morbidity (Royal College of Physicians, 2010b). The National Alcohol Harm Reduction Strategy published in 2004 rejected alcohol taxation as a method of harm minimisation (Prime Ministers Strategy Unit, 2004Prime Ministers Strategy Unit, 2004). They declared that their analysis showed that the drivers of consumption are more complex than merely price and availability, which are already built into the system, and stated that using price as a key lever risked major unintended side effects. They also stated that the majority of people who drink do so sensibly most of the time and that policies need to be publicly acceptable if they are to be successful.

I do not believe that the findings of this research reflect North East phenomena alone. I believe this to be a culture for young people around the world. Although the North East has some of the most deprived wards in England, alcohol misuse, higher rates of STIs in young people and teenage pregnancy are reported throughout the UK, Europe and the USA.

### ***Reflection, conclusion and recommendations***

Public health work needs to embrace the value placed by the individual on voluntary risk taking and the important meaning that this provides to young people. Public health interventions need to consider that risk taking by young people is a tool to self-development. Exploration and understanding of the protective factors that are controlled and valued by the individual that may reduce negative outcomes need to be understood. In this research the herd had the ability to influence individual behaviour in young people whether that was health seeking as in screening or risk taking as in alcohol consumption and could be used in health promoting campaigns. Furthermore, health interventions and methods of communication that provided the individual with control were more likely to be adopted, which should be considered for future campaigns and meanings sense checked with young people.

Careful consideration needs to be given to media campaigns and the manipulation and meaning of the statistics used. Young people in this study have correctly inferred that a one in 10 chance of getting Chlamydia equates to a nine in 10 chance of not becoming infected. Furthermore, the use of public health information tends to emphasise potential disease and consequences that may lie in the future, which may actually reduce the relevance to the young person.

Despite the amount of information and awareness for Chlamydia there was very little increase in the knowledge of individuals experiencing this process and there appeared to be an information saturation, in that the young people were only receptive to the basic information that they needed.

The more contemporary methods of communication, such as text and mobile phone, were preferred (rather than letter), and are supported by current technological supply. As control to the individual was an important theme of preferred communication this should also be incorporated into media strategies.

Screening practice using incentives target large, easily accessible groups such as student populations in order to achieve high volume screening targets. This in itself creates a health inequality for those who are most vulnerable and harder to reach. Frequency of individuals screened should be monitored and considered when calculating disease prevalence. As postcode information is a mandatory reporting field, these could also be mapped against deprivation in order to evaluate whether resources are used effectively.

Alcohol expectancy needs to be challenged in a way that is relevant and acceptable to young people. Campaigns need to be based in the here and now and culturally relevant. For example, the calorific value of alcohol and the weight gain that it creates may be more relevant than extolling the harmful effect on the liver.

The perception of being in control by knowing partners and offsetting risk taking associated with alcohol use and sexual behaviour facilitated risk taking behaviour. The reality of inaccurate perceptions, for example the shock at receiving a positive result, created a dichotomy that caused anxiety to the individual although it did not lead to a change in risk taking. Knowledge and communication is an important area for service review and screening services should reflect upon the assumptions made about the knowledge acquisition of service users as there may be applications for transferring knowledge more effectively, such as that discussed in social norms theory.

In challenging social norms by rejecting herd behaviour young people face, at best questioning or misunderstanding and, at worst outright rejection from their social group. There may be a price of being different in the way that public health practitioners would like young people to be. As the challenge becomes explicit to peers it may be difficult to mitigate against this by the individual and may be difficult to advocate this by the external experts. In such circumstances it is highly rational for young people to disregard public health literature that is not socially and contextually relevant.

In a time of economic downturn public health campaigns will need to take a salutogenic approach by finding the factors that create and support resilience and wellbeing. Value needs to be placed with the capacity, skills, knowledge, connections and potential in individuals, families and communities. However the real challenge will be in the need for national and local strategies and organisations to share their power with each other,

without which the interconnectedness of assets that can be developed and supported will be impossible.

### ***Further research***

A number of areas of further research were identified from this study:

Control and the experience of risk taking appeared to be valued by the young people in this study. The theory of edgework appears to support this phenomena although this is a relatively new concept with no theory related to sexual risk taking. Therefore, further research using a grounded theory approach could be designed to understand the values to young people of alcohol use and sexual risk taking, using edgework as a conceptual framework that would generate theory to inform government policy and public health practice.

The consequences of not following the crowd in the context of social drinking patterns and sexual behaviour could be explored in order to understand the challenges that young people may face hold and the factors that influence them. Methodologies such as phenomenology, grounded theory and ethnography as well as story telling through narrative accounts by individuals could give more insight into the factors influencing behaviours and the consequences of actions taken. This could identify protective factors that may be used for service development and health improvement interventions using an asset based approach to health.

Whilst this research used a cohort of young people who accessed the local Chlamydia screening programme this could be replicated with the addition of a control sample of young people who have not used a Chlamydia screening programme. This would identify whether there are population differences in risk taking behaviours between those who screen and those who do not.

The cost-benefit studies that provided the evidence base for the NCSP projected the reduction of complicated disease. This has not yet been evidenced nationally and local figures do not appear to support this. There is a need for randomised controlled trials that can demonstrate the affect that screening for Chlamydia has on complicated infection.

## **Appendix A Interview prompts**

### **Suggested semi-structured interview prompts**

#### **Chlamydia Screening and Risk Taking**

- What did you know about Chlamydia screening before your first test?
- What made you decide to have a test?
- How did you feel that you had been at risk of getting Chlamydia when you did your test?
- What about other infections or pregnancy?
- How do you try to reduce the risk of infections and pregnancy?
- Have you ever put yourself at greater risk due to alcohol or drugs?
- What about peer pressure?
- How many partners did you have in the 3 months before your test?
- Do you usually use condoms?
- Do you think screening is a good way of stopping people becoming infected?
- Have you had a Chlamydia test before and if so where?
- Describe how you were offered the test.
- How did you feel?
- How could this have been better?
- How did you feel after you sent your test- who did you tell?
- How did your partner/ friends feel about your testing?
- What was your result?
- How did you receive your result?
- How did you feel when you received your result?
- How did you react –was this different than you thought you would -why?
- Could the way you received your result have been better?
- How did your result influence how you felt about your future risk?
- Describe what 'sexual health' means to you.
- How has your knowledge of risk and infections changed as a result of screening?
- How will screening change how you protect yourself in future?

- How has there been any change in your relationship with your partner(s) as a result of screening?
- How did screening affect the way you thought about your partners?
- How has screening made you think differently about practising safer sex?
- Describe any changes you have made as a result of screening.

## **Appendix B Participant information sheet**

Lynn Wilson  
Public Health Specialist  
NHS County Durham & Darlington  
John Snow House  
Durham University Science Park  
Durham  
DH1 3YG

Reference: SUIS

Feb 2008 Version 3

Centre number:

Study number:

### **Participant Information Sheet**

#### **The Impact of Chlamydia Screening on Individual Behaviour**

I would like to invite you to take part in a research study. Before you decide you need to understand about the research and how you would be involved. Please read the following information carefully and discuss with others if you wish. Part 1 gives you information about the study and part 2 will inform you of how the study will be undertaken. Please contact me if you need more information or if anything is unclear.

I work in County Durham and Darlington Primary Care Trusts. As part of a University qualification I will be performing some research. This research will examine the effect that having a Chlamydia screening test may have on the individual, and will explore attitudes to future sexual activity.

#### **Part 1**

Chlamydia is the commonest sexually transmitted infection in this country. Around 1 in 10 young people have this infection without knowing. If not treated this can cause problems for men and women when trying for a baby.

I would like to hear your views about the local Chlamydia screening programme. You are one of around 20 young people who are being asked to talk about having a Chlamydia test. You will be invited to meet me for a one hour interview, to discuss your

experience. This study may not benefit you but the findings will be used when planning future services.

The interview will be tape recorded. You can choose where you would like to be interviewed, usually at the clinic that you were tested or at the central office. Once I have typed your interview you will be able to check it. When the research is finished the results of the study will be shared with other staff locally and nationally. Your personal interview will not be revealed.

It is up to you to decide whether or not to take part. We will discuss this form when we meet. If you are happy I will undertake the interview. You will be asked to sign a consent form after the interview. If you are not happy that I use the interview information you will be given your tape. You may leave the study any time you wish. This will not affect the care you receive.

If you are not happy with any part of this study, part 2 of this information sheet will tell you how to make a complaint.

**This completes part 1. If you are interested in taking part in this study please read part 2 before making a decision.**

## **Part 2**

Your information will be kept confidential. This will be stored in the Chlamydia screening central office, in a locked cabinet separate to your clinic notes, accessible only by me. It will be labelled with your screening number. You will be able to leave the study at any time. In which case you will be given your tape recording and your information will be destroyed. Once your interview is written up you will be invited to check it and correct any mistakes.

Your information will be kept for 3 years. It will not be sent to any other organisations or to any other countries. Once this research is completed your interview information will be destroyed using PCT policy. Your interview may be one of a few that are read by a special group who will decide whether the interview should be changed. Whenever your information is used, all identifying information will be removed so that it is anonymous. This means that no-one will know that you took part unless you tell them. I hope that the findings of this research will be published.

Your interview will be carried out at a venue of your choice. This may be at your home or in a private room at your GP surgery or in one of the PCT offices in County Durham and Darlington, in which case you can contact the PCT head office:

John Snow House

Durham University Science Park

DH1 3YG

Tel: 0191 3011300

Should this study cause you any distress during or after your interview, then referral to other agencies such as a counsellor will be discussed with you and arranged for you if you wish. The researcher is a trained nurse and has a duty of care to you and others. She will refer you to another agency if: she is worried that you or a child is at risk, may be at risk of self-harming or harming of others, or if the researcher finds that there is sexual activity between children and adults.

If you have any concerns about this study I can be contacted on 0191 597 4873 or 07799030315. Or you can contact my University supervisor, Susan Carr on 0191 215 6017.

This study is insured through County Durham and Darlington Primary Care Trusts. If you want to make a complaint contact the human resources department on: 0191 587 4800.

All research in the NHS is looked at by an independent group of people called the 'Research and Ethics Committee'. They protect your safety, rights, well-being and dignity. This research has been reviewed and approved by Newcastle and North Tyneside Research Ethics Committee.

You will be given a copy of this form and a signed consent form to keep.

Lynn Wilson

Public Health Specialist

NHS County Durham and Darlington

## Appendix C Consent form



County Durham Primary Care Trust  
Darlington Primary Care Trust

Reference: SUCF

Feb 2008 Version 2

Centre number:

Study number:

Client identification number:

### Consent form service user

#### Title of Project:

**The Impact of Chlamydia Screening on Individual Behaviour**

**Name of researcher: Lynn Wilson**

1. I confirm I have read and understand the information sheet dated Jan 1<sup>st</sup> 2008 (version 1) for the above study. I have had time to consider the study, ask questions and have had these answered to my satisfaction.

2. I understand that my participation is voluntary and that I am free to withdraw at any time without giving any reason, without my medical care or legal rights being affected.

3. I am happy with my interview and agree that this information will be used in this study

4. I know that my name and details will be kept confidential and will not appear in any printed documents.

5. I agree to take part in the above study



Number of participant :

Date:

Signature

Name of person taking consent:

Date:

Signature

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