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Erectile Dysfunction: Why is it the ignored symptom of Cardiovascular Disease?

“Dissertation submitted in accordance with the requirements of University of Chester for the degree of Master of Science.”

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Abstract.

This study aimed to identify the reasons why erectile dysfunction (ED) is the ignored symptom of cardiovascular disease (CVD). A qualitative, ethnographic approach is used to elicit personal experiences through semi-structured interviews of 18 nurses, identified using a nonprobability purposive sample. Three different groups of nurses were interviewed, all with current experience of cardiovascular patients. Six nurses were interviewed in each group, which were cardiology ward nurses from secondary care and practice nurses and cardiac rehabilitation nurses from primary care. Burnard's (1991) thematic content analysis was used to reduce and categorise the data under four main headings, knowledge base, role / best person, barriers and improvements.

The findings demonstrate lack of knowledge about ED, the link with CVD, causes and treatment. Only one nurse thought discussions regarding ED were not part of his role. Thoughts regarding the best person to address ED were split between medical and nursing staff, although male staff were felt to be more appropriate this was rarely possible, especially within nursing staff. Barriers to addressing ED were embarrassment, age and culture of the patient and health care professional, the relationship between the patient and the health care professional, gender of the health care professional, the environment and lack of time and knowledge. Ways to improve the assessment of ED were identified, such as the need for training and the use of literature for patients, which will hopefully improve local knowledge about ED and therefore improve patient care.

Format for declaration.

This work is original and has not been previously
submitted in support of a degree, qualification or
other course.

Signed.....

Date.....

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List of abbreviations.

B&AtPCT	Bradford and Airedale teaching primary care trust
BHF	British Heart Foundation
BMI	Body mass index
CCU	Coronary care unit
CRN	Cardiac rehabilitation nurse
CRP	C-reactive protein
CVD	Cardiovascular disease
CWN	Cardiology ward nurses
DOH	Department of Health
ED	Erectile dysfunction
ETT	Exercise tolerance test
GP	General practitioner
HCP	Health care professional
HDL	High density lipoprotein
MET's	Metabolic equivalent tasks
MI	Myocardial infarction
MMAS	Massachusetts Male Aging study
NEED	Nurse education in erectile dysfunction
NIH	National Institute of Health
NO	Nitric oxide
PDE5	Phosphodiesterase
PN	Practice nurse

Chapter 1.

Introduction.

Erectile dysfunction (ED) is the inability to attain and maintain an erection sufficient to permit satisfactory sexual intercourse (National Institutes of Health [NIH], 1992). Approximately 10-25% of men of all ages are affected by ED, increasing to 20-45% in older age groups (Soloman, Man, Martin & Jackson, 2003a, Dean, 2005). The Massachusetts Male Aging Study (MMAS) showed 40% of men over age 40 had ED, increasing to 67% over age 70 (Feldman, Goldstein, Hatzichristou, Krane & McKinlay, 1994). The prevalence of ED is set to increase (Soloman *et al.*, 2003a, Dean, 2005) due to ageing populations in the developed world (Dean, 2005) and especially because of growing populations in the developing world (Soloman *et al.*, 2003a, Dean, 2005). ED has been defined as an epidemic (Kloner, 2003), in 1995 it was estimated to affect more than 152 million men worldwide, the projected prevalence for 2025 is 322 million (Soloman, Man & Jackson, 2003b, Soloman, Debusk & Jackson, 2005).

Despite the alarming prevalence of ED, it is under reported, under-recognised and under treated (Dean, 2005). Jones and Nugent (2001) highlight evidence of the apparent lack of importance of ED in the National Health Service by the vague reference to 'sexual problems' when talking about rehabilitation in the National Service Framework for Coronary Heart Disease (DOH, 2000), it does not mention ED specifically.

ED was originally thought to be due to psychogenic causes (Miller, 2000, Fung, Bettencourt & Barrett-Connor, 2004, Montorsi, 2005), however, it is now well recognised that the majority of cases are organic (Miller, 2000, Wyllie, 2005, Jackson, 2006a) although psychological components can coexist (Tomlinson, 1998, Gregoire, 1999, Miller, 2000, Dean, 2005, Wyllie, 2005, Jackson, 2006a) especially in younger men (Randrup & Baum, 2004).

Virtually any chronic disease can affect erectile function, as a range of systems in the body may be involved which interfere with the mechanism of erection. Chronic disease may also lead to depression, which is a risk factor for ED (Montorsi, 2005). The aetiology of ED is now known to be endothelial dysfunction which accelerates atherosclerosis (Chetlin, 2004, Billups, Bank, Padma-Nathan, Katz & Williams, 2005, Dean, 2005, Solomon *et al.*, 2005). This explains the high prevalence in CVD (Chetlin, 2004, Hood & Robertson, 2004, Dean, 2005) and diabetes, even when adjusted for age (Grover *et al.*, 2006). The incidence of ED in CVD ranges from 39-64% (Solomon *et al.*, 2003a).

Links with cardiovascular disease.

ED can be an early manifestation of CVD (Kaiser *et al.*, 2004, British Heart Foundation [BHF], 2005, Billups *et al.*, 2005, Jackson, 2007) occurring 2-3 years before CVD presentation (Jackson, 2006b). Even when adjusted for age, ED is associated with vascular diseases such as heart disease, hypertension, hyperlipidemia and diabetes. There is a 39% probability of

complete ED with treated cardiac disease, 28% in those with treated diabetes, 15% with treated hypertension, increasing to 20% in hypertensive smokers, and 56% in smokers with heart disease (Feldman *et al.*, 1994). The high incidence of ED in CVD suggests that individuals with CVD should be assessed for ED (Kloner, 2003, Cheitlin, 2004, Kostis *et al.*, 2005, Kloner, 2006). Assessment should be routine in middle aged and elderly men (Lewis, Rosen & Goldstein, 2004) some suggest all men over 40 should be screened for ED (Soloman *et al.*, 2005) whilst others suggest over age 25 (Billups *et al.*, 2005).

Patients presenting with ED should be assessed for CVD as ED may be the first presentation of occult CVD (Jackson 2003, Cheitlin, 2004, Fung *et al.*, 2004, Kostis *et al.*, 2005, Sadovsky & Miner, 2005, Soloman *et al.*, 2005, Thompson *et al.*, 2005, Kloner, 2006) diabetes or hypertension (Fung *et al.*, 2004). Jackson (2003) reports up to 50% of patients with chest pain and angiographic evidence of CVD had ED, more than half experienced ED prior to CVD symptoms. It stands to reason that ED maybe an early sign of disease elsewhere as the penile artery diameter is smaller than other arteries (Jackson, 2003, Sadovsky & Miner, 2005, Jackson, 2006a, Kloner, 2006).

One study concluded ED was only a marker for CVD prior to the development of Guanosine monophosphate (GMP) - specific phosphodiesterase (PDE5) inhibitors (Frantzen, Speel, Kiemeneij & Meuleman, 2006). However, most cardiac investigations are designed to detect obstructive disease, yet it is sub-clinical lipid plaques which rupture causing acute events, therefore

presentation with ED should be used as a marker of cardiac risk and treated appropriately (Jackson, 2007).

CVD accounts for 50% of ED in men over 50 years old. In conjunction with ED, there becomes structural changes within the corporal tissue which affects the physiology of an erection (Kloner, 2003). Soloman *et al.* (2005) found 30% of men presenting with ED had significant cardiac risk requiring assessment before sexual activity was recommended, 37% had uncontrolled hyperlipidemia, 24% uncontrolled diabetes and 17% uncontrolled hypertension. There is a significant correlation between the severity of ED and the severity of CVD (Soloman *et al.*, 2003a, Cheitlin, 2004, Sadovsky & Miner, 2005, Soloman *et al.*, 2005, Thompson *et al.*, 2005). Grover *et al.* (2006) suggests ED should be a risk factor for CVD due to probable undiagnosed hyperglycaemia, impaired fasting glucose and metabolic syndrome and the increased risk these have for developing CVD. Management of these diseases may prevent the development of ED. Avoidance or modification of risk factors may prevent or reverse existing ED (Coughlin, 2006).

Risk Factors.

The risk factors for ED are the same as those for CVD. The link between ED and CVD risk factors was acknowledged in 1985 (Virag, Bouilly & Frydman, 1985, [as cited by Jones and Nugent, 2001]) and was also highlighted in the MMAS (Sadovsky & Miner, 2005). Risk factors measured in mid life have been associated with ED 25 years later (Fung *et al.*, 2004). Nitric oxide (NO)

is impaired in CVD and its risk factors, ED develops as NO plays a major role in regulating erection (Sullivan *et al.*, 1999). Risk factors produce oxidative stress and damage endothelial cells, which reduces NO production.

Intracellular calcium is increased causing contraction of the smooth muscle which prevents vasodilation of the penile artery, thus preventing erections (Soloman *et al.*, 2005).

Age.

An age related incidence of ED was identified as early as 1948 (Randrup & Baum, 2004). Aging is an independent risk factor for ED, although it is not an inevitable consequence of aging (NIH, 1992, Miller, 2000, Wyllie, 2005).

However, many men in their 50's with ED believe it to be 'normal' for their age, therefore few seek help (Hackett, 2005). Before the 1990's ED was tolerated as part of the aging process, research now disputes this (Dean, 2005, Soloman *et al.*, 2005). Although men in their twenties have been found to have ED (Crowley, Persad & Hurn, 1998) the risk of developing ED increases with age (Miller, 2000, Cheitlin, 2004, Fung *et al.*, 2004, Dean, 2005, Grover *et al.*, 2006, Papaharitou *et al.*, 2006). CVD, diabetes and their risk factors also increase with advancing age (Grover *et al.*, 2006) further increasing the risk of ED.

Diabetes.

Diabetes and CVD are independently associated with ED even after adjusting for risk factors. Presentation with ED has identified undiagnosed hyperglycaemia, impaired fasting glucose and metabolic syndrome (Grover *et al.*, 2006). The severity of ED is greater in diabetics than non-diabetics (De Berardis *et al.*, 2005), the probability of complete ED is increased to 28% compared with 9% in non-diabetics (Soloman *et al.*, 2003a). ED may be the presenting symptom for 10-15% of men diagnosed with diabetes (Fung *et al.*, 2004) within ten years at least 50% will have ED (Fung *et al.*, 2004, Rashid, 2005) with an overall prevalence of 35-70% (Rashid, 2005). The complications associated with diabetes contribute to the development of ED, such as macro and microvascular disease, renal failure, neuropathy, obesity and possible sedentary lifestyle (Grover *et al.*, 2006). Patients with diabetes frequently have abnormal lipids which also causes ED (Wyllie, 2005).

Fung *et al.* (2004) did not find a significant association between diabetes and ED, however, they found 40% of men with CVD or diabetes to be sexually inactive, which raises the question if they were sexually inactive because of non-reported ED. Also, sexually inactive men (31%) were excluded from the study, therefore severe ED may have been underestimated in their findings. Other reasons for not finding a significant association were because of a low prevalence of known diabetes, misclassification, survivor bias and optimum management of known diabetes during the 25 years prior to follow up (Fung *et al.*, 2004).

Smoking.

Smoking is an independent risk factor for ED (Miller, 2000, Kloner, 2003, Cheitlin, 2004, Fung *et al.*, 2004, Russell, Khandheria & Nehra, 2004, Dean, 2005, Grover *et al.*, 2006, Wespes *et al.*, 2006). It also accentuates the effects of other risk factors such as CVD and hypertension (NIH, 1992). Oestrogen levels are increased which could antagonise the effects of testosterone, contributing to ED (Jones & Nugent, 2001). There is a dose response relationship between the number and length of time smoked and the risk of ED (Kupelian, Link & McKinlay, 2007), the chance of developing ED is almost doubled after smoking for 8-10 years (Kloner, 2003). Passive smoking can also increase risk of developing ED (Kloner, 2003, Kupelian *et al.*, 2007). Smoking cessation improves symptoms of ED (Fung *et al.*, 2004, Kupelian *et al.*, 2007).

Hyperlipidemia.

Hyperlipidemia is a risk factor for ED (NIH, 1992, Sullivan *et al.*, 1999, Cheitlin, 2004, Fung *et al.*, 2004, Russell *et al.*, 2004, Dean, 2005, Grover *et al.*, 2006, Wespes *et al.*, 2006). Although Feldman *et al.* (1994) did not find a correlation with total cholesterol and probability of ED, others later claim high cholesterol and triglycerides are common and significant risk factors for severe ED (Fung *et al.*, 2004). Conversely, as low levels of protective high density lipoprotein (HDL) cholesterol is a risk factor for ED (NIH, 1992,

Feldman *et al.*, 1994, Kloner, 2003, Dean, 2004, Grover *et al.*, 2006) high levels of HDL cholesterol reduces the risk (Dean, 2004).

Hypertension.

Hypertension can cause ED (NIH, 1992, Sullivan *et al.*, 1999, Kloner, 2003, Cheitlin, 2004, Fung *et al.*, 2004, Dean, 2005, Grover *et al.*, 2006, Wespes *et al.*, 2006). Men with a systolic blood pressure above 140mmHg are twice as likely to have ED (Fung *et al.*, 2004). Although Kostis *et al.* (2005) state the importance of lifestyle changes, they highlight the lack of evidence to support blood pressure control via medication in reversing ED. However, others found reduction in blood pressure improves ED (Esposito *et al.*, 2004).

Obesity.

Obesity is an independent risk factor for CVD (Esposito *et al.*, 2004, Russell *et al.*, 2004, Grover *et al.*, 2006) and is a strong predictor of severe ED (Fung *et al.*, 2004, Russell *et al.*, 2004). A high waist to hip ratio is associated with increased risk of CVD (Despres, Lemieux & Prud'homme, 2001), it is also associated with low testosterone which can cause ED. Testosterone is also low in individuals with diabetes and hypertension (Jones & Nugent, 2001). Obesity is associated with some of the emerging risk factors for CVD such as elevated C-reactive protein (CRP) and interleukin (Esposito *et al.*, 2004).

Again, Feldman *et al.* (1994) did not find a high body mass index (BMI) to increase risk of ED, however, others found a BMI over 28.7 carries a 30% greater risk of ED than those with a BMI less than 25, but like other modifiable risk factors, risk can be lowered with weight reduction and regular exercise. Approximately a third of men with ED regained sexual function after a 2 year weight reduction and exercise regimen. ED was improved due to a reduction in weight, BMI, waist to hip ratio, blood pressure, serum glucose, total cholesterol, triglycerides and an increase in HLD cholesterol. A reduction in CRP and interleukin was also seen (Esposito *et al.*, 2004). Obesity may also have a physiological effect contributing to ED (Wyllie, 2005). An improvement in psychological status may contribute to the improvement of ED through reduced anxiety and depression, and improved self image (Esposito *et al.*, 2004).

Physical inactivity.

Physical inactivity also affects the risk of developing ED (Kloner, 2003, Russell *et al.*, 2004, Dean, 2005, Kostis *et al.*, 2005), increasing activity can reduce risk (Kloner, 2003). The MMAS showed 70% reduced risk of ED in middle aged men who exercised as opposed to those who led a sedentary lifestyle (Wespes *et al.*, 2006). Exercise improves libido and mood as well as improving vasculature (Wyllie, 2005).

Depression.

Depression is one of the most important psychogenic causes of ED (NIH, 1992, Feldman *et al.*, 1994, Jones & Nugent, 2001, Wyllie, 2005). Depression and ED have been linked with CVD (Jones & Nugent, 2001). Men suffering from depression have almost a 90% probability of ED in comparison with 25% without depression. Patients presenting with ED should therefore be screened for depression and visa versa (Kloner, 2003). Goldstein (2000), as cited by Jones and Nugent (2001) talks about a 'self-reinforcing triad', where depression causes myocardial infarction (MI), MI causes ED and ED leads to depression. Most patients post MI become depressed, one of the causes of this are concerns regarding resuming sexual activity (Briggs, 1994). It is important that nurses discuss ED in depression. Discussion may help alleviate the depression if patients knew ED was a common problem that can be easily treated (Jones & Nugent, 2001). Even if there is an organic cause for ED, psychosexual counselling may be beneficial (Roberts 2004, Dinsmore, 2005) as emotional difficulties are often present as well (Dinsmore, 2005). Counselling can achieve an improvement between 50-80% (Dinsmore, 2005).

Alcohol and Drugs.

Excess alcohol intake can affect the risk of developing ED (NIH, 1992, Feldman *et al.*, 1994, Tomlinson, 1998, Dean, 2005, Wyllie, 2005, Wespes *et al.*, 2006). Any drug, whether legal, illegal or prescribed can affect sexual function in many ways. Ironically, not only does CVD cause ED, but some

drugs for CVD can worsen or cause ED (Miller, 2000, Jones & Nugent, 2001, Crumlish, 2004, Russell *et al.*, 2004, Wespes *et al.*, 2006). The MMAS found a correlation with ED and medication for CVD and diabetes (Feldman *et al.*, 1994), however, ED could have been due to the disease process alone. It has been estimated that a quarter of all ED is due to the adverse effects of drugs (Miller, 2000, Wyllie, 2005).

Beta blockers can cause ED (Steinke, 2000, Jones & Nugent, 2001, Kloner, 2003, Crumlish, 2004, Russell *et al.*, 2004, Kostis *et al.*, 2005, Soloman *et al.*, 2005, Coughlin, 2006), although their use did not change sexual practice in one study, possibly because of newer, cardio selective agents in comparison with older beta blockers (Rosal, Downing, Littman & Ahern, 1994). However, they may have been sexually inactive post MI because of ED. Beta blocker induced ED can be dose related, therefore patients may benefit from a reduced dose (Briggs, 1994).

Alpha blockers can cause ED (Russell *et al.*, 2004) although to a lesser extent than beta blockers (Wyllie, 2005). Other drugs are anti-hypertensives (Miller, 2000, Jones & Nugent, 2001, Kloner, 2003, Crumlish, 2004, Russell *et al.*, 2004, Grover *et al.*, 2006, Wespes *et al.*, 2006) diuretics (Jones & Nugent, 2001, Kloner, 2003, Russell *et al.*, 2004, Kostis *et al.*, 2005) and anti depressants (Miller, 2000, Jones & Nugent, 2001, Kloner, 2003, Russell *et al.*, 2004). Digoxin can also cause ED (Jones & Nugent, 2001, Wyllie, 2005) as it effects smooth muscle contraction in erectile tissue (Wyllie, 2005) and it can reduce testosterone which is known to cause ED (Jones & Nugent, 2001).

ACE inhibitors and calcium channel blockers can also cause ED (Steinke, 2000, Crumlish, 2004) although these are least associated with ED (Randrup & Baum, 2004, Russell *et al.*, 2004, Wyllie, 2005). Angiotensin II receptor blockers have improved ED in those with hypertension (Billups *et al.*, 2005). Statins have been said to cause ED (Soloman *et al.*, 2005) although as might be expected, some studies show improvement in ED with statins (Russell *et al.*, 2004, Billups *et al.*, 2005). ED caused by the unwanted effects of medication could lead to discontinuation (Lewis *et al.*, 2004) therefore it is vital that patients are informed of the potential side effects and alternative treatments if it were to occur.

Substance abuse and the chronic use of illegal drugs also cause ED (NIH, 1992, Tomlinson, 1998, Coughlin, 2006, Wespes *et al.*, 2006). PDE5 inhibitors can be misused to reverse the effects of illicit recreational drugs, such as ecstasy and ketamine which increase libido but cause ED (Rashid, 2005).

Other risk factors.

Other factors which increase the probability of ED are lack of education past high school (Wyllie, 2005, Grover *et al.*, 2006) as education is associated with better health due to higher incomes and healthier lifestyles (Wyllie, 2005). Not being married or not cohabiting also increase the probability of ED (Grover *et al.*, 2006), however, others found a higher incidence of ED in men in stable relationships (Papaharitou *et al.*, 2006). Other emerging risk factors for CVD,

such as fibrinogen and lipoprotein (Sullivan *et al.*, 1999) and CRP (Billups *et al.*, 2005) have also been suggested as risk factors for ED.

Hyperhomocysteinemia has been suggested to be an independent risk factor of ED, increasing the risk of ED three fold. Homocysteine levels also increase with age (Demir *et al.*, 2006).

Risk factor modification.

Atherogenic risk factors need be modified (Kloner, 2003, Kloner, 2006, Wespes *et al.*, 2006) as risk factor control may be key in preventing ED (Solomon *et al.*, 2003a). Aggressive risk reduction may prevent subsequent CVD events (Jackson, 2006a). This should be done in conjunction with treatment for ED, as the underlying causes are not 'cured' by ED treatments (Wespes *et al.*, 2006). If the causes of ED are not addressed, eventually treatment will be less effective (Jeremy *et al.*, 2000). Lifestyle changes may be an effective approach for primary prevention of ED and CVD. The prospect of imminent ED for a young man may be more of a persuasive tool than the thought of CVD in the future (Kloner, 2003).

Quality of life.

ED reduces quality of life (Miller, 2000, Cheitlin, 2003, Soloman *et al.*, 2003b, Esposito *et al.*, 2004, Hood & Robertson, 2004, Dean, 2005, De Berardis *et al.*, 2005) for partners as well as sufferers (Hood & Robertson, 2004). Sexual

health is important for overall wellbeing. The negative impact on quality of life caused by ED can lead to low self esteem (Marwick, 1999, Miller, 2000, Soloman *et al.*, 2003b, Dean, 2005, Soloman *et al.*, 2005) feelings of incompleteness, lack of self worth and it can be a threat to an individuals 'manhood', which can lead to isolation and depression (Soloman *et al.*, 2005). Sufferers are more likely to have poor self image, suffer from stress and depression (Russell *et al.*, 2004, Dean, 2005) and have relationship problems (Briggs, 1994, Marwick, 1999, Miller, 2000, Russell *et al.*, 2004, Dean, 2005, Jackson, 2006a) as well as general poor health (Dean, 2005).

ED can be the start of a vicious circle as it can cause significant psychological distress (Crowley *et al.*, 1998, Soloman *et al.*, 2005, Kloner, 2006) and anxiety and depression can also cause ED (Dean, 2005). Deterioration in quality of life and depressive symptoms have been seen to precede the development of ED, as well as worsen as a result of ED (De Berardis *et al.*, 2005). Successful treatment improves physical and emotional wellbeing (Soloman *et al.*, 2003b, Soloman *et al.*, 2005). A multidisciplinary approach, including psychology input is required in ED clinics and has proved successful (NIH, 1992, Crowley *et al.*, 1998).

Culture.

Different cultures within the nursing culture itself may affect nurses' perception for the need for intervention in sexual function with patients (Gamel, Davis & Hengeveld, 1993). Although epidemiological studies in ethnic minority groups

are rare, the National Health and Social Life Survey results suggested African Americans are 20% more likely to have ED than Caucasians (Billups *et al.*, 2005). There is little information on the effects of culture and ED, of that available, the majority is in men of South Asian origin.

ED therapy and treatment is based upon Western culture which raises the question if treatment has efficacy in different cultures. Studies show poor results with sex therapy in Asian patients in comparison with white patients, which could be due to language barriers, lack of motivation, the desire for an organic cause rather than psychological, and passivity of women within the Asian culture. Women are reluctant to attend therapy sessions unless the therapist is female, and men are not keen on their spouse attending. High drop out rates in sexual therapy may be accounted for by Western techniques which are not culturally sensitive. There are also practical problems such as living with extended family and potential lack of privacy (Pettrak & Keane, 1998).

Barriers to addressing ED from patients' perspective.

ED is frequently ignored by patients (Soloman *et al.*, 2005). Despite the prevalence of ED, sufferers and health care professionals have been uninformed or misinformed about ED, although information has improved since medical treatment became widely available in 1998 (Dean, 2005). However, many men with a history of CVD still do not receive help for ED

(Miller, 2000). Discomfort in discussing sexual topics have been cited as a reason for refusal to participate in research (Rosal *et al.*, 1994).

Many men will not reveal ED unless they are asked about it directly. The Cross-National Survey on Male Health Issues included 32,644 men aged between 20 to 75, only a minority of those with ED sought treatment. Young men thought the problem would resolve spontaneously, older men thought it were a natural part of ageing (Hackett, 2005). Some men have waited up to 40 years before seeking help (Crowley *et al.*, 1998). As many as 90% of ED sufferers do not discuss it with their doctor, possibly because it is a difficult condition to come to terms with (Soloman *et al.*, 2005). It is probably under reported because the stigma prevents men from seeking help (Miller, 2000, Billups *et al.*, 2005). Although it is more socially acceptable since highlighted as a medical condition, sufferers still feel shame and embarrassment (NIH, 1992, Albarran & Bridger, 1997, Williams, 2001, Dean, 2005) which are the major causes of under reporting ED to urologists (Soloman *et al.*, 2005).

Papaharitou *et al.* (2006) acknowledge the difficulties with seeking help, and found benefit with an anonymous telephone helpline. Callers had ED on average for two years, organic conditions such as CVD were common. Only 32% previously contacted a doctor regarding their sexual problem, especially if they had the problem for over two years. This suggests they were not satisfied with their treatment or outcome of their consultation. A survey of 439 men aged 51 revealed only 4% had ED, yet when 100 were interviewed, 40% reported ED (Hackett, 2005). This suggests anonymity does not necessarily

lead to honesty about ED. Although anonymity is required for some, the anonymity of helplines perhaps reinforces the thought that sufferers should be ashamed or embarrassed about ED, therefore there is a need to emphasise this is not the case and promote face to face contact.

Patients may be reluctant to discuss sexual concerns with nurses because of gender issues (Albarran & Bridger, 1997, Williams 2001), shyness and the perception that the nurse does not appear to be experienced and mature enough to answer their concerns (Albarran & Bridger, 1997). Patients feel discussion about sexuality would embarrass health care professionals (Marwick, 1999, Hackett, 2005). There is also fear that sexual problems would be dismissed (Gregoire, 1999, Marwick, 1999) therefore some do not expect much assistance in this area of health (Marwick, 1999). Despite this, patients want health care professionals to initiate discussions about sexual function (Gamel *et al.*, 1993) and believe nurses should provide sexual education and advice (Gamel *et al.*, 1993, Steinke & Patterson-Midgley, 1996, Albarran & Bridger, 1997, Albarran, 2000) regardless if the patient is currently sexually active or in a relationship (Albarran & Bridger, 1997).

Barriers to addressing ED from the health care professionals' perspective.

Patients' reluctance to discuss sexual dysfunction requires health care professionals to be proactive (Billups *et al.*, 2005, De Berardis *et al.*, 2005) yet health care professionals are also reluctant to address ED (Miller, 2000, Hood & Robertson, 2004, Soloman *et al.*, 2005). It is frequently ignored by doctors,

including cardiologists (Cheitlin, 2003, Cheitlin, 2004, Soloman *et al.*, 2005) possibly because sexuality training is lacking in medical school (NIH, 1992, Randrup & Baum, 2004, Frantzen *et al.*, 2006). Education and training is required for doctors treating patients with ED to ensure they are continually updated with emerging data on patient preference and the effectiveness of different therapies in different patient groups (Hackett, 2005). Lack of awareness by doctors in managing ED in CVD patients may reduce patients' confidence in health care professionals (Solomon *et al.*, 2003a).

ED is also a source of embarrassment for health care professionals (Albarran & Bridger, 1997, Steinke & Patterson-Midgley, 1998, [as cited by Crumlish 2004], Williams, 2001, Dean 2005). Doctors cite not knowing what questions to ask or how to ask them, feeling uncomfortable with the topic and language, however, the vast majority of patients believe sexual function appropriate to be discussed (Miller, 2000). Despite this, sexual education and advice is not routinely carried out in practice (Albarran, 2000, Steinke, 2002). Advancing age can be an obstacle in terms of assessing and treating ED, as assumptions that older men are indifferent to sexual activity and therefore ED treatment can be made (Randrup & Baum, 2004).

Lack of time and the belief that patients would initiate such a conversation are cited as reasons why doctors do not address the issue. Doctors may ignore the issue of ED as they may be unaware of the association of ED and occult or known CVD, or may have concerns about oral treatments and CVD even though such concerns are unfounded (Soloman *et al.*, 2005). Even when

doctors believe they have adequately discussed resumption of sexual activity, patients' report having no information, possibly due to poor retention of information (Briggs, 1994) which could occur if the timing was wrong, or the information was vague or unclear.

Although sexual counselling is thought to be part of the nurses' role, it does not routinely occur in practice (Shuman & Bohachick, 1987, Matocha & Waterhouse, 1993, Briggs, 1994, Steinke & Patterson, 1995, Steinke & Patterson-Midgley, 1996, Albarran & Bridger, 1997, Albarran, 2000) possibly because training is also lacking in the nursing curriculum (NIH, 1992, Briggs, 1994). Lack of information may be because the patient may be of a similar age to their father or grandfather, therefore the subject may be ignored despite the fact it may be a huge issue for the patient which could be easily treated (Jones & Nugent, 2001). The nurse may be newly qualified, young and under confident about their own sexuality, causing embarrassment and vague information, which does not alleviate fear and misconceptions (Savage, 1990 [cited by Briggs, 1994]).

Embarrassment on the part of the patient and the nurse is well recognised as a barrier to addressing sexual activity. Many nurses feel uncomfortable discussing sexual activity with patients (Crumlish, 2004) embarrassment being the main reason (NIH, 1992, Albarran & Bridger, 1997, Steinke & Patterson-Midgley, 1998 [as cited by Crumlish, 2004], Albarran, 2000, Williams, 2001, Dean, 2005). Nurses expect the patient to raise the issue if it is a problem (Matocha & Waterhouse, 1993). If the patient or partner does

raise the issue, it seems that nurses are able to listen and answer questions as required (Matocha & Waterhouse, 1993, Steinke & Patterson, 1995, Albarran & Bridger, 1997) although others disagree (Gamel *et al.*, 1993). This supports the theory that the topic is not broached by nurses due to embarrassment.

Sexual advice for single, elderly, female and homosexual patients is particularly lacking in comparison with married heterosexuals (Briggs, 1994). Sexual discussions also vary according to the nursing speciality, it is more likely to be addressed if it is thought to be relevant (Matocha & Waterhouse, 1993), areas such as gynaecology, postnatal care and mental health may be more inclined to address sexual issues (Crumlish, 2004). However, all nurses have a professional duty to assess and respond to patients' sexual health needs (Albarran, 2000). Despite this, it is rarely practiced even when the need for intervention is high, such as post MI, where the nurses on coronary care units (CCU) are well placed to address this issue (Steinke & Patterson, 1995, Steinke & Patterson-Midgley, 1996). However, information on safety of sexual activity post MI from various sources is lacking, if information is provided it is often ambiguous (Rosal *et al.*, 1994). CCU nurses have a pivotal role in initiating sexual counselling (Steinke & Patterson-Midgley, 1996) yet consider it low priority and the timing too early, yet, it also appears low priority in the rehabilitation phase (Steinke & Patterson, 1995, Steinke, 2002). Sexual counselling should commence in CCU and continue through the hospital stay and after discharge (Steinke & Patterson-Midgley, 1996, Steinke, 2002, Crumlish, 2004).

Sexual counselling should be provided in a comfortable and private environment (Briggs, 1994, Montorsi, 2005) involving the patient and partner (Briggs, 1994), yet privacy, and the inappropriate place and timing of the CCU stay is a barrier (Steinke & Patterson, 1995, Steinke & Patterson-Midgley, 1998 [as cited by Crumlish, 2004], Steinke, 2000, Crumlish, 2004, Soloman *et al.*, 2005). Lack of time is also a barrier (Steinke & Patterson, 1995, Steinke & Patterson-Midgley 1998 [as cited by Crumlish, 2004], Soloman *et al.*, 2005) as assessment can be time consuming (Montorsi, 2005). Up to one hour has been suggested as an appropriate consultation time to address ED (Tomlinson, 1998). Other barriers are comfort level and lack of knowledge and education (Shuman & Bohachick, 1987, Matocha & Waterhouse, 1993, Steinke & Patterson, 1995, Steinke & Patterson-Midgley, 1996, Albarran & Bridger, 1997, Albarran, 2000, Steinke, 2000, Soloman *et al.*, 2003a).

Failure to address ED and patients' reluctance to seek help hinders the opportunity to diagnose occult CVD (Solomon *et al.*, 2003b, Solomon *et al.*, 2005) and therefore prevent significant morbidity and sometimes mortality (Kloner, 2003, Solomon *et al.*, 2003, Sadovsky & Miner, 2005, Kloner, 2006). It could also lead patients to obtain ED treatment from illegal sources (Lewis *et al.*, 2004, Soloman *et al.*, 2005) which could cause preventable complications (Soloman *et al.*, 2005).

Best person.

The majority of patients would prefer their general practitioner (GP) to initiate discussion regarding ED at routine visits, but this does not routinely occur (Soloman *et al.*, 2005). Hood and Robertson (2004) found approximately half their respondents wished to discuss ED, most felt more comfortable having such a discussion with their GP, then their cardiologist followed by the cardiac rehabilitation nurse. The study highlights that few patients seek treatment and suggest a proactive approach is required. GP's are well placed to assess sexual function on routine visits and screen for modifiable risk factors (Grover *et al.*, 2006). As GP's and urologists may see men with ED prior to cardiologists, they have a crucial role to play, however, cardiologists need to be proactive in identifying ED in their patients and work with urologists to treat ED (Jackson, 2006a).

Advice about sexual activity may be more of a priority for patients after discharge when resuming sexual activity maybe at the forefront of the patients mind (Steinke & Patterson, 1995, Steinke, 2000). Rehab nurses are well placed to continue this support (Steinke & Patterson-Midgley 1998, [as cited by Crumlish, 2004]) and address sexual issues more than other nursing groups (Steinke & Patterson-Midgley, 1996, Albarran & Bridger, 1997). Health care professionals involved in cardiac rehabilitation programmes are in an ideal situation to broach the issue and initiate treatment considering the strong relationship with CVD and ED (Hood & Robertson, 2004).

Improvements.

The sensitive nature of the subject requires specialised training (Williams, 2001) as it is essential the consultation is dealt with in an appropriate manner using appropriate language (Tomlinson, 1998). Training would make it easier for health care professionals in clinical practice (Briggs, 1994, Albarran & Bridger, 1997, Williams 2001). Focus needs to be upon increasing confidence as well as knowledge through role play (Shuman & Bohachick, 1987, Gamel *et al.*, 1993) which would help overcome embarrassment. A script may help to overcome the difficulty of broaching the subject (Briggs, 1994, Intilli & Nier, 1998, [as cited by Jones & Nugent, 2001]). Education programmes and teaching media for patient and partner use are ideal tools to aid the provision of sexual counselling by nurses (Steinke, 2000, Steinke 2002, Crumlish, 2004). However, patient's wishes must be established as not all patients may want sexual counselling (Crumlish, 2004).

ED could be assessed during regular reviews of medical conditions or medications, using 'inform-then-probe' type questions, where the healthcare professional informs the patient that men with CVD can experience ED, and then question if it has happened to them. This not only educates the patient, but reassures them that ED is common (Miller, 2000). Others advocate a 'global review of systems form' completed by the patient prior to interview (Billups *et al.*, 2005). Sexual function is best evaluated by the patient, currently the International Index of Erectile Function (IIEF) is the gold standard tool for assessing male sexual function (Rosen & Kostis, 2003). The Sexual

Health Inventory for Men (SHIM) identifies the presence and severity of ED (Lewis *et al.*, 2004). Although completion of a questionnaire prior to consultation helps overcome reluctance or difficulties in talking about ED, it does not replace an interview (Montorsi, 2005) and it does not assist with getting the patient to make the first step in seeking help.

Risk of intercourse.

It has been suggested that all men seeking treatment for ED should be assessed for fitness for sexual and physical activity to avoid adverse consequences (Chew, Stuckey & Thompson, 2000). Resuming sexual activity after an acute cardiac event can be problematic in terms of anxiety and potential ED, it is a significant concern for patients and partners post MI (Crumlish, 2004). Concerns are due to misconceptions, performance and relationship anxieties, and fear of re-infarction or death (Briggs, 1994). Lack of information post cardiac event can lead to anxiety and can affect quality of life for the patient and partner (Steinke, 2002). Fear of resuming sexual activity post cardiac event can lead to avoidance of seeking medical help (Solomon *et al.*, 2003a).

ED complicates recovery from MI for many reasons (Jones & Nugent, 2001). Rosal *et al.* (1994) found 62% of post MI patients had problems with sexual function. The psychological effect of MI cannot be underestimated. Patients frequently experience loss of libido, have concerns regarding finances, employment, potential change in family dynamics, and the possibility of

ongoing cardiac symptoms, all which can lead to depression. Experiencing ED after a cardiac event is an added complication at this difficult time. The resulting low self esteem, depression, or fear of symptoms can exacerbate ED. Helping men to address ED post MI assists in their physical and emotional recovery by recovering their 'wholeness'. It is thought to start the process of medication adherence and secondary prevention (Jones & Nugent, 2001). This is why patient education on sexual activity and ED post cardiac event is crucial.

Despite the perceived risk of a cardiac event with sexual activity (Steinke & Patterson-Midgley, 1996, Albarran & Bridger, 1997, Steinke, 2000, Steinke, 2002) it is relatively rare, and in terms of risk has been likened to the emotion of anger (Jones & Nugent, 2001). However, sexual activity in severe and unstable cardiac conditions, such as unstable angina, uncontrolled hypertension, heart failure (class III or IV), MI within two weeks, ventricular arrhythmias, obstructive hypertrophic cardiomyopathy and moderate to severe valve disease, especially aortic stenosis may pose a significant risk. Such patients should be advised to refrain from sex until risk is assessed and treated by a cardiologist (Kostis *et al.*, 2005).

CVD is not a contraindication for sexual activity in patients who are adequately assessed and treated (Soloman *et al.*, 2005). Although Wespes *et al.* (2006) believe the potential risk is higher in those with CVD, especially depending on the severity of the disease, the risk of sexual intercourse in cardiac patients is not much greater than that of the general population (Cheitlin, 2003, Russell *et al.*, 2004, Kostis *et al.*, 2005, Soloman *et al.*, 2005).

Estimated annual risk of re-infarction or death for a man with a history of MI is 10%.

Exercise tolerance can guide doctors in estimating the risk of sexual activity, the ability to perform modest intensity exercise without symptoms implies low cardiac risk (Kostis *et al.*, 2005). Intercourse should be safe if an individual can perform activity equivalent to 5-6 metabolic equivalent tasks (MET's), such as climbing 20 stairs in 10-15 seconds without distress. Post MI patients achieving this on exercise tolerance test (ETT) without arrhythmia or ischaemia are safe to resume sexual activity. Studies show less ventricular premature beats and angina during intercourse in those with CVD than during ETT (Chew *et al.*, 2000). Sexual intercourse requires 3.4 MET's. A patient with an uncomplicated recovery post MI should be able to perform tasks of 3.8 MET's two weeks post event, those starting an exercise programme greater than six MET's (Rosal *et al.*, 1994).

Regular exercise can almost eliminate the increased risk of MI triggered by sexual activity. The annual risk can be as low as 3% if exercise tolerance is good (Cheitlin, 2003, Russell *et al.*, 2004) as this increases functional reserve and stroke volume and reduces heart rate (Russell *et al.*, 2004). Exercise training post MI, such as cardiac rehabilitation exercise programmes, improves cardiovascular efficiency and reduces myocardial oxygen consumption during physical activity, including sex (Kostis *et al.*, 2005). ETT's may have a place in assessing risk if necessary (Russell *et al.*, 2004).

Patients post revascularisation without significant residual ischaemia are low risk, ETT's may assist in assessing the extent of residual ischaemia (Kostis *et*

al., 2005). Evidence suggests that increased sexual activity can actually decrease mortality. However, anxious sexual preoccupation, frustration and avoidance may actually pose a greater risk than sex itself (Chew *et al.*, 2000). Extramarital intercourse is also thought to increase cardiac risk (Briggs, 1994, Albarran & Bridger, 1997, Cheitlin, 2003).

Specific sexual activity may need to be discussed. Although blood pressure and heart rate increase during sexual activity, this is only for one to two minutes. Increases in total body and myocardial oxygen demand are modest, and again duration of the increase is brief. Minimal increase in heart rate is seen with foreplay and stimulation, whereas 'man-on-top intercourse' can increase heart rate to 67% of maximum heart rate (Cheitlin, 2003) therefore adopting a different position may be beneficial during recovery post cardiac event. Russell *et al.* (2004) suggest there is no increased risk due to position, whilst others advocate 'a comfortable position' (Crumlish, 2004).

Opinions on the appropriate time to resume sexual activity vary, the American Heart Association recommend seven to ten days after an uncomplicated MI, the BHF suggest two to three weeks, whilst others recommend three to four weeks in patients without treadmill induced ischaemia or who have had coronary revascularisation (Kostis *et al.*, 2005). However, in practice it is generally suggested that resuming sexual activity should occur when the patient and partner feel ready, which in many cases may be after the recommendations above.

Treatment.

Diagnostic and therapeutic approaches to ED have changed due to the development of medical therapy. The widespread media interest in oral therapies for ED has increased the number of men seeking help (Hood & Robertson, 2004, Thompson *et al.*, 2005, Frantzen *et al.*, 2006, Wespes *et al.*, 2006). Treatment with medication, vacuum devices, surgery and or counselling can be very successful (Russell *et al.*, 2004). However, patients are rarely fully informed of all the available treatments, possibly due to lack of knowledge on the health care professionals' part or embarrassment of the patient (Lewis *et al.*, 2004).

The development of the first PDE5 inhibitor, Sildenafil, more commonly known as Viagra, raised the profile of the enormity of the problem (Cheitlin, 2004). PDE5 inhibitors are first line treatment for ED (Randrup & Baum, 2004, Coughlin, 2006). Greater than ten million men worldwide were treated with Sildenafil between 1998 and 2001 (Rosen & Kostis, 2003). The development of PDE5 inhibitors created a change in public attitude and clinical approaches towards ED treatment. Those developed after Sildenafil have advantages of greater selectivity of PDE5, faster onset of action, longer duration of effect, no affect of food on absorption and improved tolerability (Rosen & Kostis, 2003, Rashid, 2005).

Although there was initial concern regarding death rates with Sildenafil in America (Chew *et al.*, 2000) they are safe and effective treatments (Soloman

et al., 2005, Wespes *et al.*, 2006) even in CVD and diabetes (Rosen & Kostis, 2003, Rashid, 2005), although success rates in diabetes may be lower (Roberts, 2004, Rashid, 2005). Studies show low cardiovascular events with Sildenafil, similar to that of placebo (Chew *et al.*, 2000). However, despite this success, Dean (2005) found only just over half of men with ED sought medical opinion, only very few received oral therapy.

However, a simple prescription is not enough to solve the problem.

Information and education about treatment is vital to ensure success (Lewis *et al.*, 2004, Hackett, 2005, Gruenwald *et al.*, 2006, Wespes *et al.*, 2006) yet this appears to be lacking (Gruenwald *et al.*, 2006). Group education is advocated by some, which will educate as well as assist to overcome the embarrassment some sufferers experience (Lewis *et al.*, 2004). The few reports of failure of oral treatment are due to lack of patient education about the medication, such as the need for sexual stimulation and several intercourse attempts, unrealistic expectations, as well as inadequate control of the underlying cause, such as CVD, and poor control of risk factors. 38% of men who discontinued oral treatment because of ineffectiveness did not receive any information about the medication. 62% received some information but only 1% of those received adequate information required to ensure effective use. Educational intervention, adequate dosage and patient follow up in this group significantly improved response to treatment. However, the researchers acknowledge their results may be biased because only patients who completed the whole course of treatment were included in the final analysis (Gruenwald *et al.*, 2006).

Inappropriate dosage can also lead to discontinuation of treatment (Gruenwald *et al.*, 2006). The effects of all PDE5 inhibitors are dose related, with better response at higher doses (Rosen & Kostis, 2003). Diabetics usually require the maximum dose (BHF, 2005). Discontinuation of treatment with PDE5 inhibitors remains a problem. Providing patients with the pros and cons of treatment options helps to ensure patients are given appropriate treatment for them, which will assist with continuation of treatment for optimal efficacy. Discontinuation of treatment due to unreasonable expectations maybe due to media coverage of treatment and financial issues. Social and relationships issues may co-exist, which need to be addressed as well as medical treatment (Hackett, 2005). Medical treatment has higher success rates with fewer risk factors in comparison with multiple risk factors (Billups *et al.*, 2005).

Medical staff may have reservations about prescribing medication for ED because of unfamiliarity in risk assessment and medical treatment options (Soloman *et al.*, 2005), however, concerns regarding oral therapies are unfounded (Jones & Nugent, 2001, Soloman *et al.*, 2005, Wespes *et al.*, 2006). PDE5 inhibitors do not increase the risk of MI with sexual activity (Cheitlin, 2003, Wespes *et al.*, 2006), in fact the chronic use of PDE5 inhibitors appears to improve endothelial function (Kostis *et al.*, 2005, Soloman *et al.*, 2005, Wespes *et al.*, 2006). They have been suggested by some to be a future treatment for a CVD cure (Wespes *et al.*, 2006) and indeed are now used to treat conditions such as pulmonary hypertension, and

possibly heart failure and ischaemic heart disease in the near future (Kloner, 2006).

All PDE5 inhibitors have shown clinical efficacy, safety and tolerability in numerous clinical trials. Adverse effects are dependant on the specific product, they are dose related and are usually mild or moderate and transient, the main unwanted effects are headache, flushing, dyspepsia, nasal congestion and visual disturbances (Rosen & Kostis, 2003, Rashid, 2005). There is no increased risk of a serious cardiovascular event with the use of PDE5 inhibitors, although sexual activity can pose a risk for patients with unstable angina, recent MI and high-risk arrhythmias (Rosen & Kostis, 2003). Treatment is safe in those with stable CVD (Soloman *et al.*, 2005) although others disagree (Dinsmore, 2005).

Hypotension may occur as all PDE5 inhibitors have a vasodilatory affect (Kostis *et al.*, 2005, Rashid, 2005, Kloner, 2006), the size of the hypotensive effect depends upon the specific drug (Rashid, 2005) but are generally less than 10mmHg (Kloner, 2006). Minor reductions in blood pressure are seen if taken in conjunction with antihypertensive medication (Kostis *et al.*, 2005, Kloner, 2006). Hypotensive patients should obviously not be given PDE5 inhibitors (Rashid, 2005).

Nitrate use is an absolute contraindication (Steinke, 2000, Randrup & Baum, 2004, Russell *et al.*, 2004, BHF, 2005, Dinsmore, 2005, Kostis *et al.*, 2005, Kloner, 2006, Wespes *et al.*, 2006) including the use of recreational nitrate

drugs 'poppers' (Rashid, 2005) as PDE5 inhibitors potentiate the effects of nitrates, which was probably the cause of 19 deaths initially reported in America (Chew *et al.*, 2000). Up to 55mmHg drop in blood pressure has been noted with concurrent use (Kloner, 2000, [as cited by Jones & Nugent, 2001]). Severe hypotension and decreased coronary artery perfusion can result in an MI (Cheitlin, 2003, Randrup & Baum, 2004). However, the occasional use of sub-lingual nitrates should not prevent treatment as long as nitrates are not used for 24 hours pre and post PDE5 inhibitor use (Chew *et al.*, 2000, Steinke, 2000, Crumlish, 2004, Russell *et al.*, 2004, BHF, 2005, Kostis *et al.*, 2005, Coughlin, 2006), 48 hours after taking long acting Tadalafil (BHF, 2005, Kostis *et al.*, 2005, Coughlin, 2006).

Nicorandil is also contraindicated with PDE5 inhibitors (BHF, 2005). Caution is required with alpha blockers (BHF, 2005, Kloner, 2006, Wespes *et al.*, 2006) although others state contraindication with Vardenafil and Tadalafil (Lewis *et al.*, 2004, Randrup & Baum, 2004, Soloman *et al.*, 2005), some state all PDE5 Inhibitors (Rashid, 2005, Coughlin, 2006), whilst others report no contraindication for PDE5 inhibitors with alpha blockers (Kostis *et al.*, 2005).

Patients who do not respond to oral therapy can be referred to urology for assessment and other treatments (Randrup & Baum, 2004, Billups *et al.*, 2005, BHF, 2005). Those who have a true failure to respond, or contraindications to first line treatment can be given transurethral or transdermal medication or via injection into the penile tissue (Dinsmore, 2005). Other medical treatments such as Apomorphine have no

cardiovascular adverse effects (Russell *et al.*, 2004) and no contraindication with nitrates (BHF, 2005) although others state contraindication (Dinsmore, 2005). Vacuum devices can be up to 90% successful, although reports vary greatly (Dinsmore, 2005), again, education and information about the difference in erection achieved may improve success rates and continuation of use.

Previous treatment options for ED were limited and unacceptable for many patients until recent developments. Treatment is now convenient, effective and safe (Hood & Robertson, 2004). Although media attention regarding ED treatments have increased the number seeking treatment, there are still many who choose to obtain non-prescribed treatments. Nurses have a responsibility to inform patients of the effects and side effects of such treatments and encourage patients to seek advice from professionals (Crumlish, 2004).

Conclusion.

ED needs to be elevated from a quality of life issue to a level of a public health concern associated with other CVD preventative measures within medicine (NIH, 1992, Billups, 2005). A public awareness education programme is required to encourage men to seek help promptly (NIH, 1992, Jackson, 2006a) as well as education for health care professionals (NIH, 1992). It has even been suggested that like diabetes, ED should be considered a cardiovascular equivalent (Jackson, 2006b). Hackett (2005) suggests ED is not taken seriously in some healthcare systems, with medical treatment being

an optional 'lifestyle' adjunct. However, with the evidence as discussed, ED is clearly an important issue which can indicate other medical problems which need to be investigated and treated if necessary, as well as the ED itself (Solomon *et al.*, 2003b, Solomon *et al.*, 2005). Knowledge of risk factors and changes in health related behaviour are required to reduce or possibly reverse the rate of ED. It is an expensive condition to treat, and the potential associated CVD even more so (Kloner, 2003).

It is evident that ED is a growing problem that can have a detrimental effect upon quality of life for the patient and partner. Not only does ED stand for erectile dysfunction, but also endothelial dysfunction and early detection (Sadovsky & Miner, 2005, Jackson, 2006a). Jackson (2003) emphasises presentation with ED is an opportunity to identify risk in terms of preventing CVD. He asks the question what harm can be done by checking blood pressure, blood glucose and lipid profile? It is therefore vital that health care professionals take a proactive approach in the assessment and treatment of ED.

Chapter 2.

Method.

Participants.

As qualitative data yields vast amounts of narrative data, it was impractical to use large, representative samples for data collection. A nonprobability, purposive sampling method was used to identify the research participants, as a sample of experts based upon known characteristics was required (Polit & Hungler, 1997), a sample thought to be 'typical' was selected (Walliman, 2005). Participants were nurses who worked with cardiovascular patients, as they were required to be knowledgeable about the issue to be studied (Polit & Hungler, 1997).

Participants were from three different areas;

- Secondary care cardiology ward nurses.
- Primary care practice nurses.
- Primary care cardiac rehabilitation nurses.

Although ideally the sample size should have been determined on the basis of information needs, until data saturation is achieved, where no new information can be obtained and redundancy is achieved (Polit & Hungler, 1997), because the research produced mainly qualitative data through in-depth interviews, the sample size was limited to six nurses from each speciality (O'Leary, 2004).

Less than 20 participants was deemed a manageable sample size with unstructured data (Brink & Wood, 1994). Although the smaller the sample size, the greater the sampling error and the less representative it is of the population (Polit & Hungler, 1997), the goal of qualitative data was a deep understanding of the issues as opposed to representativeness of the population. The small sample captured the characteristics of the population under study, instead of relying upon a large sample (O'Leary, 2004).

Although nonprobability samples can lead to sampling bias as it cannot truly represent the population, it was convenient and economic, however, conclusions drawn from the data should be treated with caution (Polit & Hungler, 1997). Erroneous assumptions and unwitting bias were reduced through being aware of personal assumptions and the carefully structured research question (O'Leary, 2004).

Ethical considerations.

All research can impinge on the sensibilities and rights of others. Ethical considerations were observed to avoid causing harm by undertaking or publishing research. However, as this research aimed to gain greater knowledge and understanding of the phenomenon, it is generally regarded as beneficial with minimal ethical consequences (Walliman, 2005). The benefits of identifying and understanding the potential reasons why assessment of sexual activity and ED in cardiovascular patients is not routinely carried out was not thought likely to cause harm.

Qualitative research allowed close involvement with participants, privileged information was received which required strict confidentiality. Interviewing is a process of human interaction potentially giving rise to embarrassment, anger, misunderstandings, violation of privacy and conflicts of opinions and values through self reflection and self disclosure. The topic of study was potentially sensitive and embarrassing for some which was considered throughout the interviews (Morse, 1991). Literature about ED and information on further training was available for participants as required.

Ethical approval was obtained from the central office for research ethics committee (COREC), Bradford research ethics committee (appendix 1), Bradford and Airedales teaching primary care trust (B&AtPCT) research and development unit (appendix 2) and the department of clinical quality and research office for Bradford Teaching Hospitals NHS Foundation Trust (appendix 3) prior to commencement of the study.

Consent was obtained from the manager of each group of nurses (appendix 4, 5, 6) as well as individual participants (appendix 7). Informed consent was achieved by providing the participants with full disclosure of their rights, and explanation of the nature and purpose of the study through a participant information sheet (appendix 8) prior to consent (appendix 9). Participants were treated as autonomous individuals, upholding the principle of self determination, their right to decide voluntarily to participate was promoted, ensuring no penalties or prejudicial treatment occurred as a result of refusal. Potential obligation to participate was taken into consideration, therefore participants were assured of free choice and that they could withdraw from the

study at any point. However, as the researcher's status was equal to most participants, and not a figure of authority, they may not have felt coerced into participating. Individuals were assured that participation and the information received was confidential and would not be used against them in any way, respecting their right to privacy. Confidentiality was maintained through anonymity as the identity of the participants was not required (Polit & Hungler, 1997). Anonymity was achieved by giving each nurse in each category a number and all the data was totally confidential.

Design.

The methodological research approach is dependant upon the type of data to be researched and the method used to collect that data. The nature of the study contained subjective human feelings and exploration of emotions, which is difficult to quantify (O'Leary, 2004) therefore qualitative analysis was used. The qualitative research focused on contextual and holistic understanding, the emphasis was on description, seeing the phenomenon through the eyes of the participants. It construed attitudes, beliefs and motivations within a subject, which can prepare for qualitative research (Walliman, 2005) as it can lead to the formation of a hypothesis (Polit & Hungler, 1997). An inside view of the phenomenon was sought by getting as close as possible to the research subject in order to collect resonant, fertile data to enable the development of a social construct through the research (Walliman, 2005).

This study explored and established nurses' attitudes towards ED in cardiovascular patients, as this does not appear to have been researched extensively in the past. A qualitative approach was appropriate as it explored depth, richness and complexity inherent in the phenomena allowing the issues concerning assessing ED in cardiovascular patients to be clarified. Nurses' life experiences of assessing ED were established, producing rich descriptive data, which was given a meaning to permit a broader understanding and deeper insight of the phenomena (O'Leary, 2004). Although less structured than quantitative research, it allowed concepts and theories to emerge (Walliman, 2005). A quantitative approach was not appropriate for this study because it is a formal, objective, systematic process to describe and test relationships, and examine cause and effect interactions among variables (Burns & Grove, 2005).

An ethnographic method of enquiry was used because it explores cultural groups in order to understand, describe and interpret a way of life from the point of view of the participants. Although ethnographic research can include quantitative data, the main data collected in this study was qualitative (O'Leary, 2004). The underlying assumption of ethnography is that all human groups evolve a culture that guides the members' view of the world and the way they structure their experiences (Polit & Hungler, 1997). This study looked at how nursing culture deals with the issue of ED with cardiovascular patients. Nursing culture towards ED was explored to establish the 'what is' as well as the 'why it is' in order to understand the world from the perspective of the participants. Ethnography accepts multiple realities and requires cultural

empathy. Attempts to suspend judgement were made in order to understand issues from the participants' perspective. Ethnography was used because it produces rich and in-depth exploration of the values, beliefs and practices of nursing culture through thick description of real people in natural settings. Any research design where immersion into the study is required has difficulties. Gaining access was time consuming and building a trusting relationship and dealing with emotions was challenging in such a short time scale (O'Leary, 2004).

Apparatus or Materials.

Data was collected using informal, semi structured interviews which assisted with open and honest communication and allowed interesting tangents to be explored. Individual face to face interviews were used to encourage freedom of expression as opposed to group interviews (O'Leary, 2004). The interview schedule (appendix 10) was developed for this project as there was no previous validated tool, it was developed around the research question and the literature review (appendix 11). Interviews were arranged around areas of interest identified by the literature review, yet allowed flexibility in scope and depth by use of open ended questions (Morse, 1991) and some closed-ended questions. Both had strengths and weaknesses, the former was difficult to construct, but easier to administer and analyse, the latter was time consuming in collecting and analysing the data, which was subjective. However, open-ended questions allow greater detail and therefore understanding of the topic (Polit & Hungler, 1997). Fifteen open ended questions were thought to be

sufficient but not excessive for data analysis (Brink & Wood, 1994). Questions eight and nine were constructed after meeting with the ethics committee.

Procedures.

Reliability and validity of the instrument was checked because if it was not reliable, it would not valid, although this can be difficult to establish. An instrument can however be reliable but not necessarily valid, in that it may not measure what it is supposed to. A pilot study was carried out on a cardiac rehab nurse to ensure the data collection instrument was appropriate for the research method and to highlight possible deficiencies in the interview structure or questions. This identified that the instrument obtained and measured the information it was supposed to, which assisted in establishing validity (Polit & Hungler, 1997) therefore no changes were required. Face validity was checked by asking a colleague to read the interview questions to determine if it was easy to comprehend. Content validity was established through the literature review to determine that instrument represented the literature accurately (Brink & Wood, 1994). Ethical considerations were upheld as in full study.

Good interpersonal communication skills were required to establish a rapport and elicit information without excessively controlling the nature or flow of information, as this would have increased the risk of bias due to preconceived ideas (Morse, 1991), it would also have affected the validity of the study (Burns & Grove, 2005). The SOLER model was used to ensure appropriate

body language, open posture and good eye contact was maintained which indicated a non defensive, open and interested attitude (O'Leary, 2004). The interviews were relaxed, in a comfortable environment which ensured participants were at ease, but were formal as they were prearranged, rather than an informal, unplanned encounter during participant observation. Face to face solo interviews were conducted, only one interview per participant occurred, no further clarification was required after the interviews (Morse, 1991). Participants were informed this was a possibility in the information sheet (appendix 8). The researcher was dependant upon participants to provide honest and open answers, although this may have been difficult as participants may have tried to maintain their privacy and dignity, they may not have wanted to feel judged by the responses they gave. Race, gender, ethnicity, class and age of the participant and researcher were considered as this can affect the interview process (O'Leary, 2004).

The interviews were audio taped which acted as a form of equivalence increasing reliability (Morse, 1991). Recording also preserved the raw data for review at a later date, which allowed the answers to be focused upon in comparison with note taking. This may have caused discomfort for participants, it did not allow capture of non verbal cues, incurred financial and time costs due to data transcription, and the recording equipment was problematic on one occasion (O'Leary, 2004).

Advantages of interviews were that questions could be clarified if they were not understood, responses were observed, the response rate was high, and

the data collected was in-depth and not dependant upon fixed questions (Brink & Wood, 1994). The consistency of the areas covered enabled comparison of the interviews. Although response rates were predicted to be higher than with questionnaires, it was acknowledged that participants may have felt more obliged to participate due to lack of anonymity, therefore agreement to participate was made over the telephone or via e mail which may have made refusal easier. Only two staff approached via phone declined to participate. Probing was used to elicit more useful or detailed information than was initially volunteered (Polit & Hungler, 1997). This allowed important issues to be approached from different perspectives which checked validity of the data (Hardey & Mulhall, 1994).

Disadvantages of the semi structured interview were that it may have provided preconceived ideas of the content and direction of the interview. It was difficult to approach interviews completely neutral as the area of interest was known from the beginning. Practical and theoretical knowledge may have provided preconceived ideas (Morse, 1991). However, the potential for bias was acknowledged and set aside in order to prevent this. A convenient time for the interview was arranged for the researcher and participant, which was often difficult and time consuming. Open ended questions can last hours and may need to be continued at another time, which increases cost (Woods & Catanzaro, 1988), however, interviews for this study only lasted between ten to fifteen minutes. As face to face interviews have less anonymity than questionnaires, participants may have felt obliged to answer in a certain way, they may have been inclined to be more honest with a questionnaire (Polit &

Hungler, 1997), however, this was overcome by assuring confidentiality and anonymity of the tape recording. Group interviews could have been used but this may have restricted information due to the potential embarrassing nature of the study (Polit & Hungler, 1997).

Data reduction and analysis.

The research question is an important component of data reduction as it sets boundaries around the data to be collected, indicating where the data is likely to be found and prevents indiscriminate data collection, therefore saving time. The literature review gave direction of the important aspects to be studied, identified who was to be studied and where the study occurred (Woods & Catanzaro, 1988).

Content analysis was chosen to prepare the data for analysis because it is readily adapted for use with qualitative interview data (Robson, 1995) and remains sensitive to the context and symbolic forms of the data. Although ongoing analysis during data collection enables thought on existing data and generates strategies for collecting new and often better data, all the data was collected before analysis began to prevent the collection of new data to fill in the gaps which may have emerged. Initial interpretation can bias further data collection, data could be reduced to the extent that alternative explanations are overlooked (Woods & Catanzaro, 1988). The interviews were recorded and transcribed in full prior to reduction and analysis using thematic content analysis (Burnard, 1991) in order to produce a detailed and systematic

recording of the themes and issues arising from the data. Data from the three groups were analysed separately as suggested by the ethics committee.

Stage one: Organising the raw data.

Recording notes following the interviews allowed initial identification of the issues discussed, and identification of the emphasis of non-verbal cues and inferences which participants placed on specific responses.

Stage two: Immersion into the data.

Notes were made of general themes in the transcriptions to enable the researcher to become immersed in the data.

Stage three: Open coding.

Headings or categories were noted which described all aspects of the data, excluding issues unrelated to the topic, known as the dross (Field & Morse, 1985, [cited in Burnard, 1991]). Care was taken to ensure that the categories arose from the data, not imposed on the data from existing knowledge (Woods & Catanzaro, 1988).

Stage four: Category collapsing.

Thirteen categories arose from the data, similar categories were collapsed into four broader categories.

Stage five: Checking the themes.

Categories were further examined to remove any similar headings, however, the categories were unable to be reduced further.

Stage six: Enhancing validity.

A colleague was asked to generate categories from the raw data. This enhances validity of the categorising method and reduces researcher bias. Three transcripts were read prior to identification of the categories, the two lists of categories were compared and discussed and found to be so similar that adjustment was not required, providing internal validity of the category system.

Stage seven: Identifying the dross.

Elimination of superfluous material was not required as discussions were very focused, therefore no further adjustments were required to the final category

list after re-reading the transcripts. All aspects of the data were categorised appropriately.

Stage eight: Category coding.

Transcripts were coded using highlighter pens according to the list of categories, ensuring all data were categorised.

Stage nine: Listing the themes in context.

All coded sections of the transcripts were cut out and placed together, ensuring the context of the data was maintained to prevent alteration of the intended meaning, by keeping the original transcript for reference.

Stage ten: The established themes.

Coded sections of data were organised to produce accessible lists under the appropriate category. Four dominant themes remained, and were further divided using sub-headings.

Stage eleven: Checking validity.

Although it is recommended that participants confirm their comments are appropriately categorised to check validity of the categorising process (Burnard, 1991), this stage was not carried out due to time constraints in rearranging to see participants. Validity of the categories was achieved by

demonstration of the appropriateness to the data, the relevance of the categories to the research question and the ease in which the responses were classified into the categories (Brink & Wood, 1988).

Stage twelve: Writing up the findings.

Categorised data was used to discuss the findings, ensuring the interview recordings and the original transcripts were used if the data was unclear.

Stage thirteen: The writing up process.

A commentary was made linking examples of the categorised data, ensuring the original meaning of the data was maintained through use of the interview tapes and transcripts.

Stage fourteen: Presenting the findings.

The decision to link the data to the literature is a representation of the findings and a comparison of the findings to the previous literature, it also avoids unnecessary repetition of information. Although this method remains close to the original material, allowing categories to be generated in order to understand the data and present the findings in an honest and reliable way, the only way to remain perfectly true to the data would have been to present the transcripts whole and unanalysed, which is unacceptable (Burnard, 1991).

Validity of the content analysis was examined by the extent to which the categories represented the theme or concept on which they are based, however, this is not possible without a theoretical or conceptual framework, which most exploratory studies do not have. The main categories developed correlate with the literature, and were discussed under subheadings. Further studies using the categories would support the validity (Brink & Wood, 1994).

Chapter 3.

Results.

Data reduction resulted in the development of four categories, knowledge base, role/ best person, barriers and improvements, which was similar to themes identified in the literature review. The main categories were further divided under sub-headings for clarity.

1. Knowledge base:
 - i. Causes
 - ii. Treatment
2. Role / Best person.
3. Barriers:
 - i. Embarrassment
 - ii. Relationships
 - iii. Age
 - iv. Gender
 - v. Culture
 - vi. Environment
 - vii. Lack of time
 - viii. Lack of knowledge
4. Improvements.
 - i. Knowledge
 - ii. Literature

Chapter 4.

Discussion.

Cardiology ward nurses.

The cardiology ward nurses were the only group containing male nurses, three were male and three were female. They had the widest age range, one in the 21-29 age group, two in the 30-39 age group, two in the 40-49 age group and one was over 60. They were qualified for the least number of years, with an average of nine years, ranging between 18 months to 23 years.

The average time in their current post was three years, which was less than the other nurses. Time ranged between 18 months and seven and a half years. Some staff were newly qualified.

1. Knowledge base.

i. Causes

In support of the literature (Shuman & Bohachick, 1987, Motocha & Waterhouse, 1993, Steinke & Patterson, 1995, Steinke & Patterson-Midgley, 1996, Albarran & Bridger, 1997, Albarran, 2000, Steinke, 2000, Soloman *et al.*, 2003a) half the ward nurses stated knowledge about ED was lacking. Only one nurse was aware it was a marker of early CVD and was able to define ED.

The majority knew medication could cause ED, only one or two knew of other causes;

“Er, the only thing I really know is just about the effects of drugs, beta blockers and things like that, that’s about it really.”

ii. Treatment

The majority knew Viagra was a treatment for ED, but contrary to the literature (Rosen & Kostis, 2003, Rashid, 2005, Soloman *et al.*, 2005, Wespes *et al.*, 2006) thought it was contraindicated in CVD. Fewer knew of other treatments such as injections, mechanical aids and surgery;

“..... I don’t know anything about it, I don’t what there is to give them, erm, I mean the only, the only medication I know about sexual dysfunction is Viagra, and as far as my knowledge goes I, I thought that Viagra was contra indicated with MI anyway, so I don’t know whether that would be given, I’m not sure.”

2. Role

Contrary to the literature (Albarran, 2000) one nurse felt strongly that it was not part of his role. However, in support of previous findings (Shuman & Bohachick, 1987, Matocha & Waterhouse, 1993, Briggs, 1994, Steinke & Patterson, 1995, Steinke & Patterson-Midgley, 1996, Albarran & Bridger,

1997, Albarran, 2000) some thought it should be part of their role, but it did not occur in practice. The fact it was not discussed was a barrier for patients;

“.....probably the fact that we don't bring it up, you know, we don't start the conversation, if they have to bring it up it's probably harder to do than if they're asked about it.”

As identified in the literature (Miller, 2000, Hood & Robertson, 2004, Soloman *et al.*, 2005) sexual activity and ED was not routinely addressed on the ward. Prior to angiography, three nurses had asked patients if they took PDE5 inhibitors to prevent problems if nitrates were required. Three nurses never asked patients about ED.

Their main role was considered to be support and advice about medication side effects and signposting to others if required;

“.....you would either find out, or approach somebody who is, yeah, more knowledgeable.”

Supporting the literature (Rosal *et al.*, 1994, Steinke & Patterson, 1995, Steinke & Patterson-Midgley, 1996) information about returning to sexual activity post cardiac event was lacking. In accordance with the thoughts of Rosal *et al.* (1994) when information is provided it is vague:

“I think at the most the patient will probably be told to refrain from sexual activity for a bit, and that will be it.”

In support of previous thoughts (Steinke & Patterson, 1995, Steinke, 2002), ward nurses felt it was not always appropriate to discuss ED during the hospital stay, as they were more focused upon the acute cardiac event;

“...it is not part of my normal assessment that we are concerned about which is more directly involved with the arteries supplying the heart”

“.....my priorities are things like, you know their diabetes, their diet, their weight, their exercise.....”

Best person

Contrary to the literature (Hood and Robertson, 2004, Grover *et al.*, 2006) no-one suggested the GP as an appropriate person to discuss ED. It was thought the best person to address ED issues was the doctor, especially if male, at an appropriate time, such as when prescribing medication which may cause ED. In support of the literature (Steinke & Patterson-Midgley, 1996, Albarran & Bridger, 1997, Steinke & Patterson-Midgley 1998, [cited in Crumlish, 2004]) some thought rehab nurses were best placed to discuss ED / sexual activity.

It was also suggested that it was part of everyone's role, and that patients would have different preferences;

“.....I think we all have a role really, I mean, you know right from the

consultant who, you know, down to whoever is administering it, so anybody really, all of us have a responsibility to do that.”

“.....some patients are going to respond better to males than they would females, or perhaps nurses rather than doctors, or visa versa. I think rehab nurses have an ideal opportunity to discuss it.....I think you just have to tailor it to the patient really.”

3. Barriers.

i. Embarrassment

Embarrassment was frequently cited as a barrier for nurses and especially patients, which reflected previous thoughts (Albarran & Bridger, 1997, Steinke & Patterson-Midgley, 1998 [cited in Crumlish, 2004], Albarran, 2000, Williams, 2001, Crumlish, 2004, Dean, 2005, Soloman *et al.*, 2005). In accordance with the literature (Matocha & Waterhouse, 1993, Steinke & Patterson, 1995, Albarran & Bridger, 1997) ward nurses did not find it as difficult to discuss ED if the patient brought the subject up;

“I have discussed it with patients, but only when they have brought it up with me.”

Replicating the beliefs of Crumlish (2004) it was highlighted that it was not always appropriate and that some patients may not wish to talk about ED;

“.....it’s something that is often a undisclosed problem that the patients may have, and they may say they don’t, don’t want to talk about it anyway.”

Replicating the thoughts of Matocha and Waterhouse (1993) it was suggested by one nurse that patients should raise the issue of ED if required;

“.....it’s only a problem if it’s a problem to the individual person.....I think it’s up to the individual to sort of, you know, like approach the subject.”

ii. Relationships

Reflecting the literature (Steinke & Patterson-Midgley 1998, [as cited by Crumlish, 2004], Hood & Robertson, 2004) rehab nurses were thought to be in a better position to discuss ED as they were able to build a better relationship with the patient;

“.....we don’t really get an in depth relationship with them, erm, and I think community rehab do. You know the patient will trust them a lot more because they’re visiting quite regularly.”

iii. Age

This group contained some of the youngest nurses. Only two had experienced patients asking them about ED, one of these also experienced partners asking about ED, four had not experienced this. This may support the findings of Albarran and Bridger (1997) that patients perceived some nurses not to be experienced and mature enough to discuss ED. In accordance with Savage (1990) as cited by Briggs (1994), young and newly qualified staff may be under confident regarding their own sexuality which may lead to difficulties and embarrassment in discussing ED;

“I think it’s very much embarrassment, and especially if you are younger, I think if you’re older it’s not quite so, because you’ve got more life experience.....”

The age of the patient was also highlighted as a barrier, especially if they were older, which supports the theory by Jones and Nugent (2001) that lack of information may be due to the fact the patient is a similar age to the nurse’s father or grandfather. In agreement with Randrup and Baum (2004) it was suggested the assumption was made that older patients were sexually inactive;

“.....but if you’re younger, and you’re talking to an older man, ‘cos there’s all the other barriers, you know, a lot of people don’t even think their parents have sex which of course is a lot pooey. Of course,

even if they're seventy or eighty they could still be having sex, and, there is that perception just because you get to a certain age, you know, you stop having fun. So I think that can be, and I think we're all guilty of that to a degree."

iv. Gender

As identified in the literature (Albarran & Bridger, 1997, Williams, 2001) gender issues were highlighted as a problem for patients. Ward nurses thought patients may be less likely to discuss ED if the nurse were female. One male nurse felt strongly that female nurses should not ask men about ED;

".....it's a personal thing for a man, it's even more personal for a man to be, discussing it with a young girl....."

"I think ideally it should be someone of the same sex."

"I think rehab nurses have an ideal opportunity to discuss it, but a lot of patients I don't think would be comfortable with that, or the fact that rehab nurses tend to be female might put them off....."

v. Culture

Culture was identified as a barrier for some staff on the ward. Supporting previous thoughts (Gamel *et al.*, 1993) different cultures within nursing were barriers to addressing ED;

“I think also, erm, probably a cultural thing as well, it doesn't worry me so much but probably for some of my Philippino colleagues, would find that difficult, well I know they would, I know they would find it difficult, and I think that maybe is a cultural thing.”

“I think the female staff from ethnic backgrounds, because they're, they're brought up, erm, slightly, a certain way, and er, I think even though they're in this job they're not, I don't think they would feel comfortable talking about it.”

One of the ward nurses who declined to participate in the study was not of British origin, which may support these beliefs.

There was an issue raising the subject with Asian men. Supporting the findings of Petrak and Keane (1998) language barriers were problematic as family members, including children were often present or translating for the patient;

“.....the Asian population might have their daughter with them, and that will probably be excruciatingly embarrassing for them.....”

vi. Environment

In accordance with the literature (Steinke & Patterson, 1995, Steinke & Patterson-Midgley, 1998 [cited in Crumlish, 2004], Steinke, 2000, Crumlish, 2004, Soloman *et al.*, 2005) the ward environment was certainly not conducive to discuss ED in privacy;

“.....it's difficult to discuss those matters because it's not in a very private environment, erm, I think if it was in more of a private environment it would be easier.....”

“.....well environment, having somewhere more private to discuss things like that, so clinic situation I think would be easier.”

“.....we pull the curtains round and think we're, we're in private, and we're not, and everyone in the rooms listening. I think that's why patients don't necessarily want to talk about it.....”

This may partly explain why most ward nurses do not ask patients about ED, and why patients rarely raise the issue of ED on the ward.

vii. Lack of time

Although identified in the literature as barrier (Steinke & Patterson, 1995, Steinke & Patterson-Midgley 1998 [cited in Crumlish, 2004], Soloman *et al.*, 2005) only one nurse thought lack of time was an issue, and thought it should be incorporated into the patients 'discharge talk';

“.....you don't want to be hurried, 'cos, there is going to be embarrassment, and you might like, might like, might need to discuss it and draw things out, and five minutes might not be enough.....”

Reflecting suggestions by Billups *et al.* (2005) and De Berardis *et al.* (2005), patients' reluctance to discuss ED requires a proactive approach by health care professionals. There was a belief that patients may perceive they would be wasting the doctor's time;

“I think, they don't want to waste the doctor's time, that's how they would perceive this subject I think, on the other hand, they probably wouldn't want to waste our time, so, I think, we would need to bring it up rather than them ask us.”

viii. Lack of knowledge

In accordance with previous findings (Webb, 1985, [cited in Briggs, 1994], Shuman & Bohachick, 1987, Matocha & Waterhouse, 1993, Steinke &

Patterson, 1995, Steinke & Patterson-Midgley, 1996, Albarran & Bridger, 1997, Albarran, 2000, Steinke, 2000, Soloman *et al.*, 2003a) half the ward nurses felt their knowledge of ED was lacking, one nurse mentioned lack of confidence. This group lacked knowledge regarding ED in comparison with the other groups, and were least proactive in addressing ED, perhaps because they saw it as low priority.

“.....from my point of view probably knowledge, because I don't know enough about it to discuss it in any great depth.....”

4. Improvements.

i. Knowledge

Despite their lack of knowledge, and contrary to the literature (Briggs, 1994, Albarran & Bridger, 1997, Williams, 2001) no-one mentioned the need for education or training, perhaps because they did not see dealing with ED as part of their role at this acute stage of patient care.

ii. Literature

The provision of literature about ED would be helpful in addressing the issue. It was suggested that it should be raised as a common problem, and may be more inclined to be addressed if it were a routine part of patient assessment,

which supports suggestions by Briggs (1994) and Intilli & Nier (1998) cited in Jones & Nugent (2001) that a script may assist in addressing ED;

“.....if they had written literature, saying that these medications, can cause a problem, and, don't be ashamed to highlight it as a problem, I think people would be more willing to, I think maybe more able to broach the subject.....”

“.....if there was something in writing, you don't have to talk about, just a check list, you know, these are common problems that occur.....indicate which of those affect you.....it's just like a self assessment but also, it takes out a lot of the embarrassment and the thoughts that this is something special to me, it's a common problem, other people must have had it otherwise it wouldn't be on the list, you know?”

Other improvements suggested were reversal of the barriers, such as the need for privacy, time and partner involvement.

Practice nurses.

All the practice nurses were female. They were generally older than the other groups, five were in the 50-59 age group and one in the 40-49 age group.

They had the greatest nursing experience in years, being qualified for an average of 29 years, ranging between 10 to 38 years.

They had an average of nine years in their current post, ranging between five to 18 years.

Both length of time qualified and time in their current job was longer than the other nurses, especially the ward nurses.

1. Knowledge base.

i. Causes

Although a couple of practice nurses stated their knowledge was lacking, they were more knowledgeable of the causes of ED and the link with CVD than ward nurses. The majority mentioned medication, CVD, diabetes and psychological causes, fewer mentioned hypertension, depression and smoking;

“.....basically it can be a precursor to coronary heart disease, erm, evidence has shown that, erm, there can be up to 50% can't there, of men who have erectile dysfunction, erm, before actually, you know, realising that they've got heart disease. Erm, but, it's caused by a

build up of erm, atherosclerosis, erm, it can be caused by other contributing factors like smoking, diabetes, erm, medications as well such as beta blockers, erm, diuretics, Spironolactone and, and also just psychological problems as well.”

Although knowledgeable about the link with CVD, practice nurses seemed to associate ED more with diabetes;

“.....it’s something maybe you tend to think of with diabetes perhaps more than the cardiovascular disease.”

“I don’t specifically say it. I do tend to with diabetics but not, not so much with heart disease.”

ii. Treatment

The majority knew medication could treat ED, and mentioned Viagra. Again, contrary to the literature (Rosen & Kostis, 2003, Rashid, 2005, Soloman *et al.*, 2005, Wespes *et al.*, 2006) most thought medication was contraindicated in CVD. Most knew of mechanical aids, injections and urethral medication, surgery was mentioned once;

“I know that they can’t have Viagra if they have had chest pains, Erm.....there is quite a few other things you can have like pumps, er, I don’t know exactly what its techniques, ‘mews’ is it? I am not

sure what it's called but its something like that. There's a few things you can have other than Viagra.”

“.....there's obviously the Sildenafil's and those types, erm, there's external erm, erm, pumps and that sort of thing, there's.....Apomorphine, apomorphine, is it a sublingual tablet? Erm, and injections, caverject, erm.....that's about all I can think of.”

2. Role

Unlike the ward nurses, all the practice nurses had asked patients about ED, two usually did this using a template in a diabetic review. Supporting previous thoughts (Shuman & Bohachick, 1987, Matocha & Waterhouse, 1993, Briggs, 1994, Steinke & Patterson, 1995, Steinke & Patterson-Midgley, 1996, Albarran & Bridger, 1997, Albarran, 2000) no-one stated it was not part of their role. One nurse thought it was not discussed enough. Their main role was considered to be assessing for ED which was usually through the route of medication side effects, which supports the literature (Lewis *et al.*, 2004). One nurse used smoking as a route in to discuss ED, which echoes suggestions by Kloner (2003) that the thought of ED because of smoking may be a persuasive tool to quit. Their role was also to provide support, advice, reassurance and signposting to others if required;

“An advisory role really, and a referrer role, and being willing to ask

the questions appropriately, and for, to act on the results, erm, referring to the right person.”

“To make the patients feel at ease enough to be able to approach you about it, possibly bringing the subject up with them, giving them an opportunity to air their worries or ask any questions.”

“certainly being, erm, open to them discussing it, you know, asking about if they have any side effects with the medication, erm, try not to be embarrassed so it’s something they feel they can talk to me about, and then sign posting them to the right person who can help them.”

“.....where I work now, we have such a lot of experts, and we even have an Urology GPsl so it seems we can easily find somebody who will know a lot more about it, and we do tend to use that. It does make you lazy but, er, it’s, it’s good to have that, that support there.”

Replicating the beliefs of Crumlish (2004), problems of resuming sexual activity post acute cardiac event was highlighted as a problem;

“Some of it is due to the poor blood supply, and some of it is due to medication they are taking, and I think some of it is psychological when they have had heart problems they are frightened.”

However, although considered to be part of their role, there is still a feeling that ED is low priority, which reflects the literature (Steinke & Patterson, 1995, Steinke, 2002);

“.....there are always other things that need sorting out that perhaps take more precedent.....”

“.....you are still trying to sort out a lot of things maybe in a short time and maybe the erectile dysfunction doesn't get a very big, you know, maybe it's not seen as an important thing as it should do really.”

Best person

In support of the literature (Hood & Robertson, 2004, Grover *et al.*, 2006) most thought the GP was the ideal person to address ED, especially if male. There was also a feeling that it did not matter who addressed the issue, it was dependant on who the patient felt was most appropriate. As highlighted elsewhere (Gamel *et al.*, 1993, Steinke & Patterson-Midgley, 1996, Albarran & Bridger, 1997, Albarran, 2000) practice nurses felt patients would be more comfortable with a nurse, and believed their role was conducive to discussing ED;

“I suppose it is anybody who, anybody who has seen them for their routine reviews, erm, who they can talk to, it doesn't really matter who it is, just if they feel comfortable with that person to tell them.”

“Anybody who feels appropriate, you know who they feel they can confide in, erm, not necessarily for that person to treat them, but to discuss it.”

“I don’t think there is a best person, I think it’s whoever is the best person for that patient.”

“Erm, possibly, well the GP’s obviously have a role to play but I don’t think patients feel quite as comfortable talking about it with the GP, possibly a nurse may be more approachable.”

In support of the literature (Steinke & Patterson-Midgley, 1996, Albarran & Bridger, 1997, Steinke & Patterson-Midgley 1998, [cited in Crumlish, 2004]) one practice nurse thought the rehab nurse was best placed to discuss ED;

“Erm, it could be that the cardiovascular nurse, you know, they’re the ones who are going to be asked these questions, erm, especially if they’ve had, lets say an acute MI – ‘when can I have sex again’ and all these kind of things, it seems a natural thing you could bring into the conversation then as well.”

3. Barriers.

i. Embarrassment

In agreement with the literature (Albarran & Bridger, 1997, Steinke & Patterson-Midgley, 1998 [cited in Crumlish, 2004], Albarran, 2000, Williams, 2001, Crumlish, 2004, Dean, 2005, Soloman *et al.*, 2005) and echoing thoughts of the ward nurses, embarrassment was frequently cited as a barrier for nurses and patients;

“Total embarrassment I would think, failure, they feel it’s their fault and it’s a vicious circle then, but mainly embarrassment I would say.”

Practice nurses also did not find it as difficult if the patient brought the subject up, which supports previous findings (Matocha & Waterhouse, 1993, Steinke & Patterson, 1995, Albarran & Bridger, 1997);

“I can talk to them quite easy if they bring it up. I admit, I don’t ask them very much. I warn them, but I don’t ask them.”

ii. Relationships

Overall, the practice nurses believed it was easier to address ED if you knew the patient and there was ‘trust’ in that relationship;

“I think, those that know us, and trust us, as practice nurses, I think it’s very good to open it up.”

“.....the more I know them, they seem to be able to come out with it a lot more, and they seem to trust you a lot more.”

“I suppose it is quite difficult for the patients to raise the subject with somebody they don’t know very well.....”

However, some felt that could have the opposite effect;

“.....you perhaps feel embarrassed if you know the patient quite well previously anyway.....”

iii. Age

Five practice nurses had experienced patients asking them about ED, only one had not. This may be because on average the practice nurses were older than the other groups. This would support the findings of Albarran and Bridger (1997) that patients perceived some nurses not to be experienced and mature enough to discuss ED. The fact this group were older and had the most nursing experience may account for the fact they were more proactive in addressing ED than the ward nurses, which supports previous thoughts (Savage, 1990, [cited by Briggs, 1994]) that young and newly qualified nurses may be less likely to address ED because of their age and lack of experience.

There was a feeling that ED was more difficult to address if the nurse or the patient were young;

“.....especially if it’s a younger nurse, how to do it, and some patients probably wouldn’t appreciate it you know.....”

“.....also the younger men, I probably would be a little bit embarrassed I have to be honest.....”

“I don’t always bring it up obviously you’ve got to pick your patients, I mean you really shouldn’t discriminate at any age, but obviously you wouldn’t ask..... young men I would probably just say, you know, ‘have you got any troubles with getting an erection?’ “

“.....a younger person might be embarrassed about talking about it because he feels he is somehow diminished from it and that he is losing his sexuality.”

Thoughts differed on the older men;

“.....some of the older men, erm, they seem to be quite happy talking about it.....”

Yet others thought older men may be reluctant to mention ED;

“.....they won't want to mention it, especially if they're older and it's something that is taboo with the older generation.....”

Perhaps as suggested in the literature (Gregoire, 1999) older men believe their problem would be dismissed, or believe it was an inevitable part of ageing supporting the findings of Hackett (2005);

“I think sometimes they feel that its one of those things, I have had it..... it's just one of those things I'm getting older.....”

iv. Gender

Supporting previous thoughts (Albarran & Bridger, 1997, Williams, 2001) and those of the ward nurses, gender was highlighted as a problem for patients. Again, it was thought patients may be less likely to discuss ED if the nurse were female;

“In our practice they probably would go and see, er, one of the male doctors.....”

“.....you don't talk about such things, such as sex, especially to another woman if it's not your wife, even if it is a nurse.....”

“I think, quite often though they prefer to talk to a male about the actual, in and outs of it.”

“Erm, well I would imagine it is easier for men to talk to a male nurse or a male doctor than it is for them to talk to a female nurse, erm, but that’s quite difficult in general practice because most of the nurses, most of the practice nurses, they’ll all be female won’t they?”

v. Culture

Culture was thought to be a barrier for patients and staff, especially if the health care professional were an Asian female, which supports previous findings (Gamel *et al.*, 1993). Again, in accordance with Petrak and Keane (1998) language barriers were problematic;

“.....religion as well..... with a lot of our Asian men, erm, it’s, it’s something that, you get the impression that they wouldn’t tell you even if they did have the problem, and then, language could be a barrier, and I wouldn’t be able to bring in one of our Asian ladies who work as health care support workers because they wouldn’t feel comfortable.”

“.....it is also a cultural issue because some of the Asian men really wouldn’t want to talk to us about it, being a woman.....”

vi. Environment

The fact the majority of the practice nurses had experienced patients asking them about ED supports Briggs (1994) theory that sexual counselling should be provided in a comfortable and private environment, which clinic settings offer more than ward environments;

“.....you need to have privacy you need to have time for you know to give patient time to pluck up courage to ask you.....”

However, contrary to the beliefs of Briggs (1994) if patients attended the surgery with their partners, practice nurses felt this was problematic;

“Yes sometimes its more difficult to, it depends whether they are coming in with their wives, it is sometimes more difficult to ask.”

vii. Lack of time

Again, although lack of time is identified as a barrier in the literature (Steinke & Patterson, 1995, Steinke & Patterson-Midgley 1998 [cited in Crumlish, 2004], Soloman *et al.*, 2005) there was only one comment relating to time being a barrier.

viii. Lack of knowledge

Reflecting previous thoughts (Webb, 1985, [cited in Briggs, 1994], Shuman & Bohachick, 1987, Matocha & Waterhouse, 1993, Steinke & Patterson, 1995, Steinke & Patterson-Midgley, 1996, Albarran & Bridger, 1997, Albarran, 2000, Steinke, 2000, Soloman *et al.*, 2003a) some practice nurses felt knowledge was lacking;

“Lack of knowledge. I mean in my case it is pure total ignorance, so I need more information on it so I can actually give them more advice.....”

“.....largely because of my ignorance in the subject, erm, I would get them to see somebody else anyway as I don’t want to give them any false information.....”

Reflecting the thoughts of Williams (2001) a need for training was supported;

“Until I’d done, you know, a couple of courses and learnt more about it, I wouldn’t have brought the subject up deliberately, because I didn’t know what I was talking about.”

There was a feeling that patients knowledge of the link between ED and CVD was lacking, which would affect their response to assessment of ED;

“I don’t think men expect to be asked about erectile dysfunction or sexual problems when they just come for a CHD review.”

Therefore there was a feeling patients don’t expect any help for ED, supporting previous findings (Marwick, 1999);

“.....they often think there is nothing there to, nothing anybody can do about it.”

“.....I suppose if they have some sort of life threatening event you know, if they have had an MI or something they might think well this is not something I should be worrying about this when I have other things have been going on you know more life threatening you know people might think I’m being making a fuss sort of about something like this when it’s there are other more important things which isn’t necessarily the case.”

4. Improvements.

i. Knowledge

Unlike the ward nurses but supporting the literature (Briggs, 1994, Albarran & Bridger, 1997, Williams, 2001) practice nurses acknowledged the need for education, despite the fact they were more knowledgeable than the ward

nurses. In accordance with Tomlinson (1998) the need for education in appropriate use of language was highlighted;

“I think it is just training and getting used, you know, used to saying the words to them, and using words that they might understand..... without being crude.”

“.....probably knowing how to ask the right questions.....”

Supporting previous suggestions (Briggs, 1994, Intilli & Nier, 1998 [cited in Jones & Nugent, 2001]) the use of a template led to assessment of ED in diabetic patients. However, although it was also in the CVD template it appeared to be more routine to ask diabetic patients about ED rather than cardiovascular patients, perhaps because the association with ED and diabetes has been known for some time;

“.....it’s just knowledge and erm, involving things in your normal ramble that you do every day. It’s adding that in that’s probably where things aren’t right at them moment, but I don’t have a routine to ask about it. Erm, so that’s the barrier for me, it’s just knowledge and getting a routine.”

In agreement with the literature (Steinke, 2000, Steinke 2002, Crumlish, 2004) education for patients was recommended;

“Erm, maybe a little bit more education once the patient has had the event if they have had an angina attack or a heart attack, if its mentioned initially the patient will know what it is if it happens and will know to ask for help. If they don't know if it's anything to do with their disease they won't think to ask about it because they will be too embarrassed.”

ii. Literature

The provision of literature was highlighted as beneficial in terms of addressing ED. Unlike the other groups, practice nurses did not mention any possible improvement with use of a template or routine assessment, possibly because it is already on the CVD template but not used as it is in the diabetes template.

“It might be quite nice to have a hand out that you could give them, you know I am sure there are some leaflets but I haven't got any leaflets and I haven't seen any, but that would be quite nice that you can give them, especially if they seem quite embarrassed to talk about it. If I had a kind of, some written information about what it was, why it happened, what they could do to help it, that would be really good.”

One nurse provided literature to her patients;

“I tend to give them the, the ‘man matters’ leaflet if they, you know, are a bit like this (gestures to show uncertainty), and not wanting to discuss.”

Cardiac rehabilitation nurses.

All the cardiac rehabilitation nurses were female. On average they were slightly older than the ward nurses and slightly younger than the practice nurses. Three fell into the 30 to 39 age group, two in the 50 to 59 age group and one in the 40 to 49 age group.

They had more nursing experience in terms of years than ward nurses, but less than the practice nurses. They were qualified for an average of 19 years, ranging between 10 to 33 years.

Again, they were in their current post slightly longer than ward nurses, but not as long as the practice nurses. They had an average of four years in their current post, ranging between one to 17 years.

1. Knowledge base.

i. Causes

Again, although rehab nurses thought their knowledge of ED was lacking, they were more knowledgeable than ward nurses but they did not mention as many causes as the practice nurses did. They all knew medication could cause ED. Half knew ED could be as a result of psychological issues, less stated that diabetes could cause ED. The majority knew there was a link with CVD, half knew it was an early marker of CVD;

“.....erm, a young man is developing ED, that could be a sign that he

has got coronary heart disease, so he needs to go and see the doctor to make investigations.....”

“.....often it can be like a marker of cardiac disease if it’s with young gentlemen, if they have erectile dysfunction then often it can be a marker that they will develop coronary disease later, or its already started.”

Knowledge of the importance of determining if ED was due to psychological or physiological causes was known by some;

“First of all, to decide whether it’s physical or psychological, if they can get a morning erection well that could be psychological, so I think that the first avenue that you go down.....”

“.....sex therapists because obviously they need to explore if it’s psychological.”

ii. Treatment

All rehab nurses knew ED could be treated with medication, the majority named Viagra. Again, contrary to the evidence (Rosen & Kostis, 2003, Rashid, 2005, Soloman *et al.*, 2005, Wespes *et al.*, 2006) half thought it was contraindicated in CVD. Less than half knew of other treatments, such as medication via alternative routes, mechanical aids, surgery and counselling;

“.....personally, I say to patients that there are a wide range of, erm, methods that they can get to improve the problems but, erm, I tend not to, I tend not to go into detail about those because I think if you start talking about injecting pellets and needles and things people are often put off, erm, so I say about, there is sometimes some tablets you can take and there are often other methods that they can use if the tablets aren't suitable.....”

2. Role

Rehab nurses were more proactive in addressing ED than ward nurses, but not as proactive as the practice nurses. Four rehab nurses had asked patients about ED, half the nurses used beta blockers as a route in to discussion, two never asked patients. Five rehab nurses had experienced patients asking them about ED.

Confirming the evidence (Shuman & Bohachick, 1987, Matocha & Waterhouse, 1993, Briggs, 1994, Steinke & Patterson, 1995, Steinke & Patterson-Midgley, 1996, Albarran & Bridger, 1997, Albarran, 2000) no-one stated it was not part of their role. Two stated discussions regarding ED was a part of her role;

“Essentially I am a nurse, and I will cover that subject just like I would any other.”

“.....it's always in my mind that, that's an important part of the rehab

process to discuss the potential for erectile dysfunction.”

Half the rehab nurses thought they had a role to provide support, advice and reassurance, and perhaps to assess patients for ED through questioning. They also felt their role was to sign post to an appropriate person, some thought the GP, whilst others mentioned referral to the hospital or ED clinic, depending which area of the city the nurse worked;

“.....essentially make the patients aware that it’s a normal, or not an unusual factor involved with that disease process.....”

“Offering them support and advice and referring them to the GP if it does happen, erm, just reassuring them that it is quite common and that it’s not abnormal.”

Reflecting the thoughts of the practice nurses and the literature (Crumlish, 2004) one nurse acknowledges the fact patients may be anxious about resuming sexual activity;

“.....we discussed it and said it was probably due to the beta blocker, and made sure he wasn’t anxious about resuming sexual activity, and erm, just referred him back to his GP.”

However, although considered to be part of their role, like the other groups, the rehab nurses believed there is still a feeling that ED is low priority in the

rehabilitation stage, which supports previous findings (Steinke & Patterson, 1995, Steinke, 2002);

“.....there could be time restraints, you might find there are other issues which you deem more important to discuss.....”

Best person

Reflecting the thoughts of Hood and Robertson (2004) and Grover et al. (2006) half the rehab nurses thought the GP was the ideal person to address ED. One nurse thought the GP was not the ideal person, despite probably referring on to them;

“.....you would send them to their GP but the GP's are so busy, and its so quick I suppose that's not the best place to send them.....”

Two thought practice nurses were the most appropriate health care professional to address ED. Supporting previous beliefs (Steinke & Patterson-Midgley, 1996, Albarran & Bridger, 1997, Steinke & Patterson-Midgley 1998, [cited in Crumlish, 2004]) two thought the rehab nurse was best placed to discuss ED. In agreement with ward nurses, it was thought rehab nurses had better relationship with patients;

“Probably the nurse. Cardiac rehab nurse.....because we have more time to talk to him about it, and they probably have, most of them will

have a better relationship with us than they do with the GP as they don't really see the same GP, whereas they see the same cardiac rehab nurse more than they will the GP."

"I think probably the rehab nurses because they have got the most to do with them, and you know, the GP's don't routinely see them, and the practice nurse may only see them every 12 months at their yearly review, so it should be brought up then, but I think we should do."

It was suggested that the presenting problem would determine who the patient would see;

".....if you have got somebody who has been picked up in primary care, GP's with hypertension or diabetes then I would think that practice nurses probably be monitoring those."

Other suggestions were 'everyone' or 'anyone with knowledge';

"Erm, well anybody I suppose that the patient feels comfortable talking to.....I kind of think it's everybody's job that's involved with looking after the patient, and from the healthcare assistant right up to the consultant or GP or anybody in-between."

"Somebody who as got knowledge, whether it's the nurse, or a specialist nurse, one of the diabetic nurses has got a special interest in

ED.....I think just refer them to correct place, the one who has got the most knowledge, could be another nurse.”

3. Barriers.

i. Embarrassment

Reflecting the literature (Albarran & Bridger, 1997, Steinke & Patterson-Midgley, 1998 [cited in Crumlish, 2004], Albarran, 2000, Williams, 2001, Crumlish, 2004, Dean, 2005, Soloman *et al.*, 2005) and the other nursing groups, all rehab nurses stated embarrassment was a barrier for the nurse. It was suggested that although they may be comfortable discussing ED, some nurses may not be. Most thought embarrassment was also a barrier for patients;

“Embarrassment, erm, and I think they think they’re the only one, so they don’t mention it.”

Echoing the thoughts of Soloman *et al.* (2005) half the rehab nurses thought the patient would feel inadequate;

“The barriers from the patient’s perspective would be I think, embarrassment, er, the old male ego, testosterone scenario, failure within their role in a relationship really.”

In agreement with ward nurses and practice nurses, and supporting the literature (Matocha & Waterhouse, 1993, Steinke & Patterson, 1995, Albarran & Bridger, 1997) some stated they were ok having discussions about ED if the patient raised the issue;

“I don’t like it , I feel, erm, it’s just embarrassing, although some, if when people ask me about it, erm, I’m alright, you know if they’ve broached it, but it’s if erm, I have to broach it, its just embarrassing, but I’m trying, because its, you know, otherwise they can sit there suffering.”

“.....he came straight out and asked me if it was okay for him to have sex with his wife, erm, so I knew from the off that sexual health was a, very important for him and, erm, it was nice actually to have that experience, ‘cos it just meant that I knew that, where I stood from the start really, and that there was no problems or insecurities on his part.”

It seemed having an appropriate opportunity to raise the issue ED made it slightly easier to discuss. The majority of the rehab nurses used medication as a means to discuss ED, one nurse broached it during discussions about exercise;

“.....I would generally tie it in when I am talking about the medication that people are taking, I find that’s the most comfortable route.....”

“When we visit patients we go through their medications, and obviously beta blockers, we can say that this can cause a problem..... if there are any problems then I’ll be visiting next week, so if you have any questions do ask me.....”

“Personally I feel comfortable with it, I mean I treat it like any other form of exercise, erm, I don’t find it embarrassing.....”

In accordance with Crumlish (2004) and replicating the feelings of the ward nurses, it was acknowledged that not all patients may want to discuss sexual activity;

“.....like I say I’ll always broach the subject, sometimes I’ll ask the patient if they would like to discuss sex, and if they might say no, then I will give people the bare minimum advice with regards to activities and sex....”

ii. Relationships

In agreement with the other nurses, the importance of a good relationship between the nurse and patient was highlighted by the rehab nurses;

“.....if it is someone I am seeing, I think you build up that rapport in that relationship.....”

“Who they are speaking to you know, and the relationship with health practitioner.”

The rehab nurses were the only group to mention that ED can lead to relationship breakdown, which reflects previous findings (Briggs, 1994, Marwick, 1999, Miller, 2000, Russell *et al.*, 2004, Dean, 2005, Jackson, 2006a).

“.....can result in, loss of sexual function for that individual and breakdown of relationships.”

“.....it’s a massive issue for a lot of people because it can involve relationship breakdown at one end, but, erm, also just the person themselves not feeling, erm, like a real man if you want to put it that way, erm, so loss of role, identity.....”

iii. Age

The rehab nurses were probably in the mid age range of the three nursing groups, five had experienced patients asking about ED. Again, this may support the notion that patients may perceive young nurses to lack experience and not be mature enough to discuss ED (Albarran & Bridger, 1997). As suggested by Savage (1990) cited by Briggs (1994) the fact this group were on average slightly older and had the more nursing experience than ward

nurses, but less than the practice nurses may account for the fact they sat between the two groups in terms of addressing ED.

In agreement with the practice nurses, one nurse agreed that the age and gender of the nurse would affect patients' ability to mention ED;

“.....because I am a female, I mean, I look quite young, so I often think that they think they are talking to a child about sex which is a taboo.....”

The majority of the rehab nurses thought the age of patient was a barrier. Echoing thoughts of the practice nurses, young patients were seen as more difficult for some. It was highlighted that younger men would feel inadequate which echoes previous thoughts (Soloman *et al.*, 2005), yet older men also posed a problem;

“.....I think it's worse sometimes with somebody in your own age group. It's just not an easy subject to broach is it?”

“.....I probably would still have a problem with the older generation, I don't really like to go there.....”

iv. Gender

In agreement with the other two groups and supporting the literature (Albarran & Bridger, 1997, Williams, 2001) gender was thought to be an issue for

patients. It was thought men would find it difficult to discuss ED with a female nurse;

“.....and us being female, so perhaps if there were males they would be more forward with it.”

However, despite the fact all three groups thought gender was an issue, as highlighted in the literature (Gamel *et al.*, 1993, Steinke & Patterson-Midgley, 1996, Albarran & Bridger, 1997, Albarran, 2000) patients want health care professionals to initiate discussions about sexual function and provide education and advice.

v. Culture

In accordance with the other nursing groups and previous literature (Gamel *et al.*, 1993, Petrak & Keane, 1998) culture and language was identified as a barrier for staff and patients in addressing ED. It was difficult if the interpreter was female and Asian, or if a family member had to interpret;

“.....if it's a younger man then I would try to, erm, arrange an, erm..... an appointment with them, where I was able to discuss that, sometimes we have a male member of staff and I utilise him, if I feel the patient would be more comfortable talking to a man.....”

“I feel that it’s part of my role, the only time I feel uncomfortable and probably do not is if I’ve got a young female member helping out with interpretation and I don’t think it appropriate to discuss it through that family member to him.”

“.....there’s, erm, all sorts of issues with regards to Asian men talking to women, erm, about sex. They don’t seem to mind talking to a white British woman about sex but if they are talking to an Asian lady through an interpreter, you know if I have got a female interpreter present, then who is a Muslim, then there maybe some anxieties about discussing it in front of them.....”

“I am aware of when I use language support, and things like that, that they might find it embarrassing, erm, so I try to be as straight forward as I can, and just use words that relate to sex in a nonchalant fashion so that hopefully the interpreter will copy that and treat it the same, I think that is important that you don’t skirt around a subject and make everybody feel like it is something to be uncomfortable about.”

“.....other people being in the room, erm, especially sometimes with the, Asian chaps, their wife’s there, or there could be someone else there, or teenage children that are interpreting, and you think ‘is this appropriate to ask through a son or a daughter’, to ask your father if he is having problems with erection, it is not appropriate, so that is an awkward time.”

vi. Environment

The majority of the rehab nurses had experienced patients asking them about ED. This supports Briggs (1994) theory that sexual counselling should be provided in a comfortable and private environment, as the patients home may offer more privacy in comparison with the ward or clinic environment;

“The setting maybe they may be more comfortable actually in their own home and their own environment than in medical GP practices.”

The majority of the rehab nurses thought lack of privacy was a barrier. The patient’s home was not always conducive to privacy, particularly in Asian households where privacy may be lacking due to extended family presence, which supports findings by Petrak & Keane (1998). Contradicting the beliefs of Briggs (1994) rehab nurses agreed with practice nurses that having partners and especially family members present was a barrier to discussing ED;

“.....the right setting, as I say, if the patients on there own, they might be a bit more open.....”

“.....and also on your visits, if they have got relatives present you know it is going to be very difficult for them to mention it.”

“.....they might not want to talk about it in front of whoever’s present in the room from their family, erm, they maybe using avoidance with their

partners so they might not want to even let their partner know that this is something that's happening.....”

“.....we have several different family members sometimes interpreting.....”

“.....family members being present, if you're using a family member as an interpreter or even if the family are there for support and wanting to get all the information, they think they are doing the right thing by being present at the interview, but you don't want to be talking about erectile dysfunction in front of the man's child or other kinds of relatives.....”

vii. Lack of time

Again, reflecting the views of the other groups and contrary to the literature (Steinke & Patterson, 1995, Steinke & Patterson-Midgley 1998 [cited in Crumlish, 2004], Soloman *et al.*, 2005) lack of time did not appear to be a huge issue for the rehab nurse. They thought they may have more time to deal with ED in comparison with GP's and practice nurses, who may only see the patient annually for a review. In agreement with Tomlinson (1998) it was highlighted however that such discussions did require adequate time;

“.....I couldn't really say that there is anybody suitable, to be able spend the time with them to discuss it.”

“.....perhaps the time factor because it’s not something that you can just gloss over.....”

viii. Lack of knowledge

In accordance with the other groups and supporting the literature (Shuman & Bohachick, 1987, Motocha & Waterhouse, 1993, Steinke & Patterson, 1995, Steinke & Patterson-Midgley, 1996, Albarran & Bridger, 1997, Albarran, 2000, Steinke, 2000, Soloman *et al.*, 2003a) half the rehab nurses agreed lack of knowledge was an issue, and half thought lack of confidence was a problem. Rehab nurses highlighted lack of training as an issue;

“I don’t feel as if I have got sufficient knowledge or expert in it.....”

“I don’t think it is a subject that is discussed, there doesn’t seem to be study days around it, and I don’t feel as if I have got adequate knowledge.”

“I suppose if I knew more about it and I was more confident about it I could talk to them about it, but it is something that is just not discussed in great depth when you go on any training days or anything really.”

“.....you might feel you’re, erm, opening a can of worms that you might not know how to deal with, so you’re asking the question because you

know it needs to be asked, but then don't know what to do with the response when it comes, so you may well avoid asking it in the first place.”

There was clearly an issue with interpreting staff because of cultural issues, but also lack of knowledge and the use of appropriate language, which supports Williams (2001) suggestion for training;

“.....using the interpreter, erm, is difficult, because they might not be comfortable, erm, finding the right words often is difficult and, I guess that's through embarrassment again, just maybe not having the confidence to, to be straight forward with the patient and say words you know 'penis' and 'erection', can be a bit daunting for some people.”

“.....there is the language issue if I'm saying to the patient about sex and the interpreter isn't as confident as me to discuss it, then I often find that I hear words like 'marital relations' coming out of their mouths rather than the word 'sex' which can often be confusing for the patient.....”

4. Improvements.

i. Knowledge

Although the rehab nurses were more knowledgeable than the ward nurses and possibly the practice nurses, there was still clearly an issue around lack of knowledge and confidence. The need for training was highlighted, which supports the literature (Briggs, 1994, Albarran & Bridger, 1997, Williams). As suggested by Tomlinson (1998) the need for education in appropriate use of language was highlighted;

“.....I think if I did it more and more I would be confident to do it more and more, I don't know what could make it easier.....learning more about the condition itself, and maybe then I would feel happier to do it.”

“Well, we don't get any training essentially on erectile dysfunction..... I think that would be a big, erm, bonus because it does help you understand the importance and the disease process behind it, rather than just thinking 'well you know it's sexual health that's nothing to do with cardiac health'.....”

“.....we are going to organise a study day for erectile dysfunction and I think, that will give me more knowledge and more confidence.....“

Although lack of time did not appear to be an issue, it was suggested that 'more time' would make it easier to address ED.

ii. Literature

One nurse used information sheets as a way to start discussion about ED. She suggested a sexual activity inventory could be used as a way to start discussions;

“.....we give them an information sheet on sexual activity.....”

“You could give them, erm, what's its called, inventory, sexual activity inventory, its erm, you could give it to patients, it's like a questionnaire.”

Like the ward nurses, it was suggested it may be more likely to be addressed if it were a routine part of patient assessment, which supports suggestions by Briggs (1994) and Intilli & Nier (1998) cited in Jones & Nugent (2001);

“.....having the leading questions you know if you had a set of questions to lead you in.....”

Summary of findings.

These findings generally reflected the literature in terms of why ED is the ignored symptom of CVD. It was clear age and nursing experience were an advantage and seemed to make addressing ED slightly easier. Some of the participants were clearly more knowledgeable than others; but, in general, nurses in each group lacked knowledge about ED, its link with CVD and treatment. The majority of nurses in all groups thought oral medication was contraindicated in CVD and knowledge of other treatment was lacking. This lack of knowledge could prevent patients receiving treatment for ED.

As may be expected, most of the rehab nurses were fairly knowledgeable, and seemed to focus upon psychological issues in terms of ED more than the other groups. The practice nurses were also knowledgeable and were the most proactive in addressing ED, which is surprising as CVD is a small part of the clinical work. Their focus regarding ED appeared to be with diabetic patients rather than cardiac patients, despite the fact both of these medical conditions require practice nurses to complete a template during consultation with patients, which requests information about ED. They may be more proactive in addressing ED in diabetes rather than CVD because ED has been associated with diabetes for longer. Their age and experience may also be beneficial in addressing ED. Despite the fact the ward nurses were the only group containing male nurses, they were least knowledgeable and addressed the issue of ED the least. Not surprisingly their priority was the acute cardiac event, and it was often felt timing was inappropriate during an acute hospital

admission. Their lack of knowledge may be the reason they possibly did not appreciate the importance of the link between the ED and CVD and the potentially devastating affects this can have for some sufferers.

Thoughts regarding the ideal person to address ED between primary and secondary care differed. It appeared that both areas did not think beyond their own area of work. Practice nurses and rehab nurses working in primary care focused upon the GP, practice nurses and rehab nurses, very few mentioned specialists at the hospital. Cardiology ward nurses working in secondary care focused upon the hospital doctor and possibly rehab nurses. Their lack of knowledge may be the reason the ward nurses did not identify the importance of their role in assessing ED. Most of the nurses identified all health care professionals had a role to play and patient choice was important.

The barriers to addressing ED were the same for the different groups. The main difficulty in addressing ED seemed to be embarrassment and difficulty in an appropriate opportunity to broach the subject. Nurses mainly used side effects of medications to do this. This would improve if patients and health care professionals were aware of the significance of assessing and treating ED, which can be achieved with education for patients and health care professionals and the use of literature.

Most nurses identified their knowledge was lacking and highlighted the need for education and training. Perhaps education regarding the link between ED and CVD may change the views of nurses in terms of the importance of

addressing ED. Different cultures of health care professionals and patients pose problems, but again, education and training would help to overcome this. It is important that interpreting staff are included in training for ED so they understand why ED needs to be assessed and explain this to patients. They need to be aware of, and be comfortable with using appropriate language and overcome the embarrassment surrounding ED.

The different environments the nurses worked in all had difficulties of their own, which is less easy to control. Contrary to the literature, lack of time did not appear to be a huge problem, it seemed that other priorities were more of an issue.

The implications for practice on the strength of the findings are the need for training and education for all three nursing groups at a local and national level. Once health care professionals are aware of the significance of assessing for ED in CVD they could go on to do further training if desired, such as the Nurse Education in Erectile Dysfunction (NEED) course accredited by the Royal College of Nursing. 174 nurses have already completed the NEED course since 2005, after it was changed to a distance learning course. Literature regarding ED in CVD should be routinely given to all men with CVD, such as 'Sex and the Heart...Seek help!' published by The Sexual Dysfunction Association. This might just be the impetus required for patients to seek help if they suffer from ED.

The different nursing groups will no doubt decide to approach ED differently, at appropriate times and with appropriate information. Perhaps cardiology

ward nurses could introduce the issue of ED either when discussing side effects of medication or when discussing resuming sexual activity after a cardiac event, and provide literature for the patient to refer to and act upon if required when the time may be more appropriate for them, such as after discharge. The rehab nurses can then continue discussions about ED with patients and refer on for treatment as appropriate, practice nurses would continue assessing ED and treatment once the patient is discharged from the rehab service. Practice nurses will also see other patients with CVD or risk factors for CVD who may not be admitted to hospital, therefore not see ward nurses or rehab nurses. They need to incorporate assessment of ED into their existing assessments which could contribute to preventing CVD.

All patients with known CVD or those with risk factors for CVD should be educated and treated for potential or actual ED by a health care professional wherever their first point of contact is. ED should be addressed by cardiac nurses during hospital admissions and continued after discharge by the rehab or practice nurse as suggested in the literature. Nurses need to explain to patients why they need to assess for ED. This will improve understanding and reduce embarrassment for patients as they will know it is an acceptable topic to discuss. Eventually, assessment for ED will become common place and be an expected part of health assessment for men.

Knowledge about ED and CVD has improved significantly over the years, but there is still a long way to go. Like anything in health care, research, practices and treatments are constantly changing, which requires healthcare

professionals to continually update themselves. At a local level, it is hoped this research will inform and educate nurses working with cardiac patients in Bradford of the significance of ED and CVD. This research has already highlighted the issue of ED and CVD. An education session about ED for cardiac nurses has taken place already, and some nurses who took part in the study have since completed the NEED course. The findings of this research will be disseminated to the groups of nurses involved through education sessions. It is hoped that cardiac nurses can work together to improve assessment and outcomes for those with ED, perhaps with guidance from our urology nurse specialist colleagues. Education sessions and discussions may lead to improved practice in terms of the provision of verbal and written information for patients about ED.

On a wider level, it is hoped this will contribute to existing research and highlight problems assessing ED with cardiac patients to allow different nursing groups to plan how best they can approach ED with their patients. A paper or poster presentation at the British Association of Cardiac Rehabilitation (BACR) conference in 2008 would be an ideal forum for this. It is also hoped that that publication of these results will highlight the importance of ED and CVD to a wider audience.

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Appendix 1.

Appendix 2.

Appendix 3.

Appendix 4.

Dear colleague,

I am a cardiovascular rehabilitation nurse working in Bradford and Airedale teaching PCT.
I am currently in my final year of an MSc in Cardiovascular Rehabilitation at the University of Chester. In order to complete the degree, I am required to undertake a research project. I am looking at assessment of erectile dysfunction in cardiovascular patients as this topic interests me and is an area frequently not addressed.

I would like your permission to interview 5-6 of your qualified nurses. If you are in agreement, please could you give the attached information sheet and consent form to your qualified staff. I will make contact after a week to establish those willing to participate and make arrangements for the interview, which should not last longer than one hour.
Please do not hesitate to contact me if you require further information.

Many thanks for your time.

Yours faithfully,

.....

Gemma Murray

Cardiovascular Rehabilitation Nurse

Date: 16th November 2006

Version Number: 2

Appendix 5.

Dear colleague,

I am a cardiovascular rehabilitation nurse working in Bradford and Airedale teaching PCT.
I am currently in my final year of an MSc in Cardiovascular Rehabilitation at the University of Chester. In order to complete the degree, I am required to undertake a research project. I am looking at assessment of erectile dysfunction in cardiovascular patients as this topic interests me and is an area frequently not addressed.

I would like your permission to interview 2-3 of your cardiovascular rehabilitation nurses. If you were in agreement, please could you provide them with the attached information sheet and consent form. I will make contact after a week to establish those willing to participate and make arrangements for the interview.

Please do not hesitate to contact me if you require further information.

Many thanks for your time.

Yours faithfully,

.....

Gemma Murray

Cardiovascular Rehabilitation Nurse

Date: 16th November 2006

Version Number: 2

Appendix 6.

Dear colleague,

I am a cardiovascular rehabilitation nurse working in Bradford and Airedale teaching PCT.

I am currently in my final year of an MSc in Cardiovascular Rehabilitation at the University of Chester. In order to complete the degree, I am required to undertake a research project. I am looking at assessment of erectile dysfunction in cardiovascular patients as this topic interests me and is an area frequently not addressed.

I would like your permission your coronary heart disease nurse lead nurse. If you are in agreement, please could you provide.....with the attached information sheet and consent form. I will make contact after a week to establish ifis willing to participate and make arrangements for the interview.

Please do not hesitate to contact me if you require further information.

Many thanks for your time.

Yours faithfully,

.....

Gemma Murray

Cardiovascular Rehabilitation Nurse

Date: 16th November 2006

Version Number: 2

Appendix 7.

Dear colleague,

I am a cardiovascular rehabilitation nurse working in Bradford and Airedale teaching PCT.
I am currently in my final year of an MSc in Cardiovascular Rehabilitation at the University of Chester. In order to complete the degree, I am required to undertake a research project. I am looking at assessment of erectile dysfunction in cardiovascular patients as this topic interests me.

Your manager has given me permission to approach you to ask if you would be interested in taking part in this research project.

I would appreciate it if you could take a few minutes to read the attached participant information sheet before you decide if you would like to participate or not. I will be in contact after a week to establish if you would like to participate in the study.

Please do not hesitate to contact me if you require further information.

Many thanks for your time.

Yours faithfully,

.....

Gemma Murray

Cardiovascular Rehabilitation Nurse

Date: 13th October 2006

Version Number: 1

Appendix 8.

PARTICIPANT INFORMATION SHEET

Study title.

Erectile Dysfunction: Why is it the ignored symptom of Cardiovascular Disease?

Invitation paragraph.

You are being invited to take part in a research study. Before you decide it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully and discuss it with others if you wish. Please ask me if there is anything that is not clear or if you would like more information. Take time to decide whether or not you wish to take part.

Thank you for reading this.

What is the purpose of the study?

The purpose of the study is to establish current practice with regard to assessment of erectile dysfunction in cardiac patients within Bradford.

Why have I been chosen?

You have been chosen as you currently work with cardiac patients.

Do I have to take part?

It is up to you to decide whether or not to take part. If you do decide to take part you will be given this information sheet to keep and be asked to sign a consent form. If you decide to take part you are still free to withdraw at any time and without giving a reason. A decision to withdraw at any time, or a decision not to take part will not affect you in any way.

What will happen to me if I take part?

If you agree to take part in the study, a mutually agreeable time and place will be arranged for an interview, which will take approximately 45-60 minutes. You will only be interviewed once, however, further contact may be required if any clarification is needed. Attempts to clarify any ambiguous information will be made during the interview to avoid this.

What do I have to do?

If you agree to take part in the study you will be asked a series of questions about erectile dysfunction in the form of an informal interview.

The interviews will be audio recorded which will assist the researcher in transcribing the data. The audio tapes will be anonymous, and will be confidentially stored until they will be destroyed when the research is complete.

What are the possible disadvantages and risks of taking part?

There are no disadvantages or risks of taking part in the study. However, the interview will take approximately an hour out of your working day, which I appreciate can be difficult to do at times.

Some people may find talking about erectile dysfunction uncomfortable or embarrassing.

What are the possible benefits of taking part?

The benefits of taking part in the study are that awareness of the issue of erectile dysfunction in cardiac patients will be heightened, reasons why this may not be assessed in practice will be highlighted. The results of the study aims to improve clinical practice and patient treatment.

Will my taking part in this study be kept confidential?

All information which is collected about you during the course of the research will be kept strictly confidential. Any information about you which leaves the hospital/surgery will have your name and address removed so that you cannot be recognised from it.

What will happen to the results of the research study?

The results of the research study will be assessed by the University of Chester as part of an MSc in Cardiovascular Rehabilitation.

The results of the study may be sent to nursing journals to potentially be published in the future.

Who is organising and funding the research?

The research study is organised by myself and the research department at the University of Chester. The funding of the study is supported by Bradford and Airedale teaching Primary Care Trust.

Who has reviewed the study?

The research study has been reviewed by Dr Stephen Fallows from the University of Chester and the Bradford Ethics Committee.

Contact for Further Information:

Gemma Murray
Cardiovascular Lead Nurse
Bradford and Airedale teaching PCT
Tel:
Mob:

Thank you for taking part in this study.

This information sheet is for you to keep along with a copy of the consent form.

Date: 16th November 2006

Version Number: 2

Appendix 9.

Centre Number:
Study Number:
Patient Identification Number for this trial:

CONSENT FORM

Title of project: Erectile dysfunction: Why is it the ignored symptom of cardiovascular disease?

Name of researcher: Gemma Murray.
Please initial box

1. I confirm that I have read and understand the participant information sheet dated 16th November 2006 (version 2) for the above study and have had the opportunity to ask questions.

2. I understand that my participation is voluntary and that I am free to withdraw at any time, without giving any reason, without my legal rights being affected.

3. I understand that the interview will be recorded to aid transcription of the data at a later time, and agree to this.

4. I agree to take part in the above study.

Name of participant	Date	Signature
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Name of person taking consent (if different from researcher)	Date	Signature
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Researcher	Date	Signature
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1 for participant; 1 for researcher

Appendix 10.

Interview schedule.

1. Gender: Male Female
2. Age: 21-29 30-39 40-49 50-59
3. How long have you been a qualified nurse?
4. How long have you been in your current post?
5. What do you know about ED?
6. What do you know about ED and CVD?
7. What do you think your role is in terms of ED and cardiovascular patients?
8. Have you ever asked a patient about ED? (can you expand on that?)
9. Has a patient ever raised the issue of ED with you? (can you expand on that?)
10. How do you feel about talking to cardiovascular patients about sexual activity and ED?
11. Who do you think is the best person to discuss ED with cardiovascular patients?
12. What do you think the barriers are to assessing ED from the patients' perspective?
13. What do you think the barriers are to assessing ED from the HCP perspective?
14. What do you think would make it easier to address sexual activity and ED with cardiovascular patients?
15. What do you know about the treatment for cardiovascular patients with ED?

Date: 22nd December 2006
Version Number: 2

Appendix 11.

Justification for interview schedule.

<u>Question:</u>	<u>Justification:</u>	<u>References:</u>
1. Gender.	-Some patients may be reluctant to discuss sexual concerns with nurses due to gender issues.	-Albarran & Bridger 1997. -Williams 2001.
2. Age.	- Some patients may be reluctant to discuss sexual concerns with nurses due to the perception that they do not appear to be mature enough answer their concerns.	- Albarran & Bridger 1997.
3. How long have you been a qualified nurse?	-Some patients may be reluctant to discuss sexual concerns with nurses due to the perception that the nurse does not appear to be experienced enough to answer their concerns.	-Albarran & Bridger 1997.
4. How long have you been in your current post?	-Some patients may be reluctant to discuss sexual concerns with nurses due to the perception that the nurse does not appear to be experienced enough to answer their concerns. -Sexual discussions with patients can vary according to the nursing speciality.	-Albarran & Bridger 1997. -Matocha & Waterhouse 1993.
5. What do you know about ED?	-Literature suggests nurses have a lack of knowledge and education about sexual counselling and ED.	-Matocha & Waterhouse 1993. -Steinke & Patterson 1995. -Steinke & Patterson-Midgley 1996. -Soloman, Man & Jackson 2003a.

<p>6. What do you know about ED and cardiovascular disease?</p>	<p>-Medics may still be unaware of the association of ED and occult or known cardiovascular disease.</p>	<p>-Soloman <i>et al</i> 2005.</p>
<p>7. What do you think your role is of in terms of ED and cardiovascular patients?</p>	<p>-All nurses have a professional duty to asses and respond to patient's sexual health needs.</p> <p>-Discussions regarding sexual activity post MI is thought to be part of the nurses' role.</p> <p>-Although thought to be part of the nurses' role, it is rarely carried out in practice.</p> <p>-It is more likely to be addressed if thought to be relevant.</p> <p>-Discussions regarding sexual activity are thought to be low priority on CCU and within the rehabilitation phase.</p> <p>-Discussion about sexual activity is more common in the hospital setting.</p> <p>-CCU nurses have a pivotal role in initiating sexual counselling.</p> <p>-Cardiac rehabilitation nurses may be better placed to discuss sexual activity and ED.</p> <p>-Cardiac rehabilitation nurses address ED more than other nurses.</p>	<p>-Albarran 2000.</p> <p>-Shuman & Bohachick 1987. -Matocha & Waterhouse 1993. -Steinke & Patterson-Midgley 1996. -Albarran & Bridger 1997. -Albarran 2000.</p> <p>-Shuman & Bohachick 1987. -Matocha & Waterhouse 1993. -Steinke & Patterson 1995. -Steinke & Patterson 1996. -Albarran & Bridger 1997. -Albarran 2000.</p> <p>-Matocha & Waterhouse 1993.</p> <p>-Steinke & Patterson 1995. -Steinke 2002.</p> <p>-Matocha & Waterhouse 1993.</p> <p>-Steinke & Patterson-Midgley 1996.</p> <p>-Steinke & Patterson-Midgley 1998 (In Crumlish 2004).</p> <p>-Steinke & Patterson-Midgley 1996. -Albarran & Bridger 1997.</p>

	<p>-Patients feel it is the role of the nurse to provide sexual education and advice.</p> <p>-Patients feel sexual counselling should be addressed in hospital. CCU nurses have a 'pivotal role'.</p> <p>-Sexual activity is more of a priority for patients after discharge.</p>	<p>-Steinke & Patterson-Midgley 1996. -Albarran & Bridger 1997. -Albarran 2000.</p> <p>-Steinke & Patterson-Midgley 1996.</p> <p>-Steinke 2002.</p>
<p>8. Have you ever asked a patient about ED? (can you expand on that?)</p>	<p>-ED is frequently ignored by patients and doctors.</p> <p>-Health care professionals are reluctant to raise the issue of ED.</p> <p>-Cardiologists rarely ask patients about ED.</p> <p>-Patients want health care professionals to initiate discussions about ED.</p> <p>-Patients reluctance to discuss ED requires health care professionals to be proactive.</p> <p>-Sexuality training for medics is lacking.</p> <p>-Doctors are unsure of the language to use.</p> <p>-Doctors believe patients would raise the issue if required.</p> <p>-Sexuality training for nurses is lacking.</p>	<p>-Soloman <i>et al</i> 2005.</p> <p>-Miller 2000. -Hood & Robertson 2004. -Soloman <i>et al</i> 2005.</p> <p>-Cheitlin 2003. -Cheitlin 2004.</p> <p>-Gamel <i>et al</i> 1993.</p> <p>-Billups <i>et al</i> 2005. -De Berardis <i>et al</i> 2005.</p> <p>-Randrup & Baum 2004.</p> <p>-Miller 2000.</p> <p>-Soloman <i>et al</i> 2005.</p> <p>-Briggs 1994.</p>

<p>9. Has a patient ever raised the issue of ED with you? (can you expand on that?)</p>	<p>-ED is frequently ignored by patients and doctors.</p> <p>-90% of men do not discuss ED with their doctor.</p> <p>-Patients may be reluctant to discuss ED with a nurse due to gender issues.</p> <p>-Patients may perceive the nurse not to be experienced or mature enough to answer their concerns.</p>	<p>-Soloman <i>et al</i> 2005.</p> <p>-Soloman <i>et al</i> 2005.</p> <p>-Albarran & Bridger 1997.</p> <p>-Williams 2001.</p> <p>-Albarran & Bridger 1997.</p>
<p>10. How do you feel about talking to cardiovascular patients about sexual activity and ED?</p>	<p>-Nurses may feel embarrassed about talking about sexual activity and assessing for ED.</p> <p>-Nurses expect patients to raise the issue of ED if it is a problem.</p> <p>-Nurses will listen / answer questions if patients / partners raise the issue.</p> <p>-Nurses may not feel adequately educated to assess ED.</p> <p>-Nurses are more likely to address the issue if they feel knowledgeable.</p>	<p>-Albarran & Bridger 1997.</p> <p>-Albarran 2000.</p> <p>-Williams 2001.</p> <p>-Dean 2005.</p> <p>-Matocha & Waterhouse 1993.</p> <p>-Matocha & Waterhouse 1993.</p> <p>-Steinke & Patterson 1995.</p> <p>-Albarran & Bridger 1997.</p> <p>-Shuman & Bohachick 1987.</p> <p>-Matocha & Waterhouse 1993.</p> <p>-Steinke & Patterson 1995.</p> <p>-Steinke & Patterson-Midgley 1996.</p> <p>-Albarran & Bridger 1997.</p> <p>-Albarran 2000.</p> <p>-Steinke 2000.</p> <p>-Soloman <i>et al</i> 2003a.</p> <p>-Matocha & Waterhouse 1993.</p>
<p>11. Who do you think is the best person to discuss ED with cardiovascular patients?</p>	<p>-Sexual counselling should be commenced in secondary care and continued into primary care post discharge.</p>	<p>-Steinke & Patterson-Midgley 1996.</p> <p>-Steinke 2002.</p> <p>-Crumlish 2004.</p>

	<p>-Discussions regarding sexual activity post MI is thought to be part of the nurses' role.</p> <p>-Patients feel it is the role of the nurse to provide sexual education and advice.</p> <p>-CCU nurses have a pivotal role in initiating sexual counselling.</p> <p>-Cardiac rehabilitation nurses may be better placed to discuss sexual activity and ED.</p> <p>-Cardiac rehabilitation nurses address ED more than other nurses.</p>	<p>-Shuman & Bohachick 1987. -Matocha & Waterhouse 1993. -Steinke & Patterson-Midgley 1996. -Albarran & Bridger 1997.</p> <p>-Steinke & Patterson-Midgley 1996. -Albarran & Bridger 1997. -Albarran 2000.</p> <p>-Steinke & Patterson-Midgley 1996.</p> <p>-Steinke & Patterson-Midgley 1998 (In Crumlish 2004).</p> <p>-Steinke & Patterson-Midgley 1996. -Albarran & Bridger 1997.</p>
<p>12. What do you think the barriers are to assessing ED from the patients' perspective?</p>	<p>-Patients feel the barriers to discussing sexual activity and assessing ED are shyness / embarrassment.</p> <p>-Perceived lack of experience of staff.</p> <p>-Perceived risk of a cardiac event with sexual activity.</p> <p>-Timing, too early, acute care setting not appropriate.</p>	<p>-NIH 1992. -Albarran & Bridger 1997. -Williams 2001. -Dean 2005.</p> <p>-Albarran & Bridger 1997.</p> <p>-Steinke & Patterson-Midgley 1996. -Albarran & Bridger 1997. -Steinke 2000. -Steinke 2002.</p> <p>-Steinke & Patterson 1995. -Steinke & Patterson-Midgley 1998 (In Crumlish 2004). -Steinke 2000. -Crumlish 2004. -Soloman <i>et al</i> 2005.</p>

<p>13. What do you think the barriers are to assessing ED from the health care professionals' perspective?</p>	<p>-Health care professionals feel a barrier to discussing sexual activity and assessing ED is embarrassment.</p> <p>-Lack of knowledge.</p> <p>-Lack of time.</p> <p>-Inappropriate time / place.</p> <p>-Decreased length of hospital stays.</p>	<p>-NIH 1992. -Albarran & Bridger 1997. -Steinke & Patterson-Midgley 1998 (In Crumlish 2004). -Albarran 2000. -Williams 2001. -Dean 2005.</p> <p>-Shuman & Bohachick 1987. -Matocha & Waterhouse 1993. -Steinke & Patterson 1995. -Steinke & Patterson-Midgley 1996. -Albarran & Bridger 1997. -Albarran 2000. -Steinke 2000. -Soloman <i>et al</i> 2003a.</p> <p>-Steinke & Patterson 1995. -Steinke & Patterson-Midgley 1998 (In Crumlish 2004). -Steinke 2000. -Soloman <i>et al</i> 2005.</p> <p>-Steinke & Patterson 1995. -Steinke & Patterson-Midgley 1998 (In Crumlish 2004). -Steinke 2000. -Crumlish 2004. -Soloman <i>et al</i> 2005.</p> <p>-Steinke & Patterson 1995. -Steinke 2002. -Crumlish 2004.</p>
<p>14. What do you think would make it easier to address sexual activity and ED with cardiovascular patients?</p>	<p>-Education and training may make it easier for health care professionals to assess ED.</p>	<p>-Albarran & Bridger 1997. -Williams 2001.</p>
<p>15. What do you know about treatment for cardiovascular patients with ED?</p>	<p>-Medication, vacuum devices, surgery and or counselling is very successful.</p>	<p>-Russell <i>et al</i> 2004.</p>

	<p>-Oral treatments are safe and effective.</p> <p>-Medication is contraindicated with regular nitrate use.</p> <p>-Few seek / receive treatment.</p> <p>-Medication does not increase the risk of MI.</p> <p>-Medics may be concerned about oral treatments for ED and cardiovascular disease.</p> <p>-Chronic use of medication has shown improvement in endothelial function.</p>	<p>-Soloman <i>et al</i> 2005. -Wespes <i>et al</i> 2006.</p> <p>-Steinke 2000. -Wespes <i>et al</i> 2006.</p> <p>-Dean 2005.</p> <p>-Cheitlin 2003. -Wespes <i>et al</i> 2006.</p> <p>-Soloman <i>et al</i> 2005.</p> <p>-Soloman <i>et al</i> 2005. -Wespes <i>et al</i> 2006.</p>
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Appendix 12.

I Okay, erm, if you would just start off with the first questions and just answer whether you are male or female just for the tape.

CRP Female.

I And which age group do you come into 21-29, 30-39, 40-49 or 50-59?

CRP 30-39.

I Thank you. How long have you been a qualified nurse?

CRP 15 years.

I And how long have you been in your current post?

CRP 4 years.

I Can you tell me what you know about erectile dysfunction?

CRP It affects men,

I Right,

CRP It basically is where they have trouble getting or maintaining an erection,

I mmm,

CRP and can be effected by illness such as heart problems, diabetes, depression, anxiety, things like that.

I Yes, good thank you. Erm, what do you know about erectile dysfunction cardiovascular disease? You touched on some of it.

CRP I know that it can be affected by, by the disease itself, also treatment for the disease such as beta blockers can affect erectile dysfunction or can affect impotence.

I Thank you. What do you think your role is in terms of erectile dysfunction in cardiovascular patients?

CRP It, it depends really on what, on what the, er, client base is at the time. I would usually mention it to the patient and then take their lead as to whether they feel it is important to them, depends on their age and their, their level of sexual activity at that time as to whether I would proceed, I would take their lead as to whether they feel that it is something they want to discuss further.

I So is it something more that you would broach if they brought the subject up?

CRP Er, I would initiate the subject.

I Right.

CRP and then if they, if I got the impression that it was something that they were wanting to discuss further or they expressed that they wanted to discuss it further then I would, but other than that I wouldn't sort of openly discuss it.

I Have you ever asked a patient about erectile dysfunction?

CRP I've mentioned that it can occur with heart disease, I mention that it's a side effect of the tablets and it can occur, and then again take their lead

from “thanks but no thanks”, or “Yes, I have noticed that, how can I get some help?”

I Okay, thank you. Has a patient ever raised the issue with you?

CRP If I have lead them into that subject as in, erm, say like reviewing them after the first visit when it has been mentioned on the first visit, I would ask if he'd been having any side effects from the medication, if they were happy with the medication at this current dose, and then I would possibly get a response like “no real side effects but I've had this problem”.

I How do you feel about talking to cardiovascular patients about sexual activity and erectile dysfunction?

CRP A level of embarrassment initially, I've got more confidence as I have been doing it more, erm, and I have learnt not to presume.

I What do you mean by that?

CRP I find if, if a gentleman or couple are elderly I have not sort of presumed that, that's not a topic that they want to discuss, and I have been approached by a patients wife about, about whether sexual activity is appropriate, and is it a problem for, for the heart, and the heart condition.

I Right, okay. Anything else you want to say about that?

CRP What that question?

I Yes, about how you feel.

CRP I want to get it over and done with as quick as possible because of the embarrassment factor.

I Right, okay. So that's the main issue, embarrassment?

CRP Yes, because it is a delicate and personal issue.

I Yes.

CRP I would not avoid it, I know it has to be said and it is an important part of people's lives. It, it is just the delicateness,

I Yes,

CRP of the situation.

I Okay, thanks. Who do you think the best person to discuss erectile dysfunction with cardiovascular patients?

CRP That depends on the, the relationship they have with their GP, whether the GP is male or female may have some influence on, on how the patient approaches the GP. I think because it, it is mentioned, or I mention it quite early on in the discussion, that it makes it easier, it opens up the gates for, for the possibility that it can occur and I would hope that they could bring it up if need be, however because the GP's time is very limited they may feel that's something they can't discuss with them.

I mmm.

CRP So I haven't answered the question there really have I?

I Well, no you have to a certain degree, you know its asking who the best person is, err, you seem to focus on perhaps the GP, if they've got, if the patient finds that appropriate.

CRP I would usually in the discussions that I have with them, unless the broach it, say that this is an issue that can effect some people, if, if you find that it is something that is effecting you and is important in your life, then a discussion with the GP regarding negotiating your medication regime would be appropriate.

I Okay, thank you. What do you think the barriers are to assessing erectile dysfunction from the patient's perspective?

CRP Embarrassment.

I Right.

CRP Erm, possibly also it would be easier if I was a male nurse I think, because you wouldn't have the male female barrier there.

I Okay.

CRP I think embarrassment from the patient's perspective and also the possibility of him thinking that he would cause embarrassment for me as well.

I Right, okay. Erm, what do you think the barriers are to assessing erectile dysfunction from the health care professionals perspective?

CRP Every healthcare professional?

I Yeah, well you can talk about yourself, you can talk about health care professionals in general as well.

CRP Again it's the embarrassment and the patient but, but also it's a very, very sensitive issue, but it's in some respects not classed an important issue its something that's secondary to other things.

- I Who do you think doesn't class it as an important issue. The health care professional or the patient?
- CRP I think the patient would perceive that if he is having those problems he maybe reluctant to mention it because it's, it's not important.
- I Right.
- CRP Not from the issue of the health care professional.
- I Anything else about the barriers from the health care professional?
- CRP I think just the whole issue of seeking out treatment for it.
- I Right.
- CRP There is very little treatment for that issue unless you have a specific illness.
- I Right.
- CRP Specific types of illness such as diabetes.
- I Okay, right we'll move on, erm, what do you think would make it easier to address sexual activity and erectile dysfunction with cardiovascular patients?
- CRP Confidence of the nurses, a strong evidence base of what treatments are out there.
- I When you mention confidence, what, any ideas what could improve the health care professionals confidence?
- CRP Well at present there is very little help out there for that sort of illness, specifically if the, if somebody has cardiovascular disease because its, its known, the treatment for it, such as Viagra, are classed as a contraindication, contraindicated because of the treatments for the

angina, so it's a bit of a six and two threes situation. So it's, it's knowing about the different treatment options that could be available, to be able to discuss them, with the patient so that the patient could then seek appropriate help.

I Okay, thank you. And final question. What do you know about the treatment for cardiovascular patients with erectile dysfunction? You mentioned Viagra just then, is there, are you aware of anything else?

CRP It's, it depends whether the condition is psychological or physical, erm, breaking down those barriers to find out which, which is the main problem, and obviously targeting that group.

I mm hmm.

CRP Obviously being, because of the nature of the er, because it can, cardiovascular disease can cause impotence not necessarily the medication that,

I mm hmm,

CRP that could have the problem, so you would be looking at is withdrawal of certain medications appropriate, but then you are reducing your protection from a cardiac point of view, so it's something, something that would have to be considered very very carefully.

I Okay, right thank you very much for your time.

Appendix 13.

I Okay, first question, for the tape, could you just tell me whether your male or female?

CWN1 Female.

I Thank you, and can you tell me which age group you fall into, 21 to 29, 30 to 39, 40 to 49 or 50 to 59?

CWN1 21 to 29.

I Thank you. How long have you been a qualified nurse?

CWN1 17 years.

I And how long have you been in your current post?

CWN1 Er, 2.

I What do you know about erectile dysfunction?

CWN1 Erm, I know that, erm, it's a problem for, er, a man to get an erection, erm, during sexual intercourse, erm, apart from that not a great deal.

I Okay, that's fine. Do you know anything about erectile dysfunction in cardiovascular disease?

CWN1 I know that beta blockers, erm, can effect it, erm, and I know that we probably don't, erm, tell our patients that.

I Okay, right, thank you. What do you think your role is in terms of erectile dysfunction in cardiovascular patients?

CWN1 Erm, that we ought to really inform men when they are started on beta blockers that that can be a side effect of it, but we don't really.

I Okay, thank you. Have you ever asked a patient about erectile dysfunction?

CWN1 Yes we do, erm, prior to them having an angiogram done we do ask them if they are taking anything for erectile dysfunction, that is part of the admission, that we do.

I Right, so it's just asking if they take medication?

CWN1 Yes.

I Okay. Has a patient ever raised the issue of erectile dysfunction with you?

CWN1 No, no they haven't.

I Okay. How do you feel about talking to cardiovascular patients about sexual activity and erectile dysfunction?

CWN1 I would be fine, I would be fine to talk about it, and, and I don't why personally why I don't, I don't know because it isn't something I find embarrassing. I would discuss it with patients, I just feel that..... I don't know, it's just something I don't think is really talked about. I don't know why though.

I Right, okay. Who do you think is the best person to discuss erectile dysfunction in cardiovascular patients?

CWN1 Erm, well I think we all have a role really, I mean, you know right from the consultant who, you know, put the patient on the medication, you know, down to whoever is administering it, so anybody really, all of us have a responsibility to do that.

I Thank you. What do you think the barriers are to assessing erectile dysfunction from the patients perspective?

CWN1 Erm, embarrassment.....just embarrassment.

I Is there anything else do you think is an issue?

CWN1 I would say that was probably the main issue.

I Okay. What do you think the barriers are to assessing erectile dysfunction from the health care professionals perspective?

CWN1 Embarrassment. I think, yeah, I can't see anybody, you know the, we talk about so many things with our patients, but that does seem to be, you know, is something that is difficult for people. I know that, you know, we ask them about it prior to, err, angiography, but some staff find that very difficult.

I think also, erm, probably a cultural thing as well, it doesn't worry me so much but probably for some of my Philippino colleagues, would find that difficult, well I know they would, I know they would find it difficult, and I think that maybe is a cultural thing.

I Erm, what, what do you think would make it easier to address sexual activity in erectile dysfunction in cardiovascular patients?

CWN1Erm, I suppose, well mainly from my point of view, when you give, erm, patients various information booklets and things, you don't always give them, the patients with cardiac rehab problems, most of the time get in there first before us, but erm, I suppose that would be the best time to, to open the subject up, you know, for the resuming sexual activity, er, post MI and things like that, erm, and going through the, the booklets and leaflets that maybe the best time to do that, erm, but probably most of the time I think people will get to that and kind of skirt over it and ask the patient to have a look at it if there is a problem.

I So you don't even think that the sexuality activity post MI is discussed?

CWN1I think, I think it probably isn't, really, yeah. I think at the most the patient will probably be told to refrain from sexual activity for a bit, and that will be it (laughs).

I Okay, thank you, er, and the last question, erm, what do you know about the treatment for cardiovascular patients with erectile dysfunction?

CWN1I don't, I don't know anything about it, I don't what there is to give them, erm, I mean the only, the only medication I know about sexual dysfunction is Viagra, and as far as my knowledge goes I, I thought that Viagra was contra indicated with MI anyway, so I don't know whether that would be given, I'm not sure.

CWN1Right, okay, thanks very much.

Appendix 14.

I Okay, for the tape, could you just tell me whether you're male or female?

CWN2Male.

I Thank you, and which age group do you fall into, 21 to 29, 30 to 39, 40 to 49 or 50 to 59?

CWN2None of them!

I None of them?! Would it be a category above that or, I guess it would have to be, okay, thank you.

I How long have you been a qualified nurse?

CWN2Qualified in '98.

I '98, and how long have you been in your current post?

CWN2Seven and half years.

I Okay, thank you. Can you tell me what you know about erectile dysfunction?

CWN2It's lack of blood supply to the, what, what a physical cause of it you mean like a blood supply to the penis?

I Yes.

CWN2Erm, also a lot more psychological causes and probably more common for psychological reasons than it is for physical ones.

I Okay, what do you know about erectile dysfunction in cardiovascular disease?

CWN2Erm, only what common sense tells me. Erm, basically if there are, er, any arteries getting clogged up, furred up, in any part of the body, obviously we're concerned ones that supply the heart, coronary arteries, and if they are furred up then the odds are that other arteries throughout the body are going to have constrictions, and er, if that supply to the penis is constricted then obviously you can have problems there.

I Good, yes. Okay, thank you. What do you think your role is in terms of erectile dysfunction in cardiovascular patients?

CWN2That really depends on the patient, it's not something we are proactive about on this ward because, we are only really concerned about the coronary arteries and people who are, erm, not being able to, having sex at that time or for a while afterwards, erm, so it's not a direct, erm, not really directly involved. We do give advice on sex, erm, but basically in terms of physical ability, er, because of putting strain on the heart and people are worried about it and, so that's what we do. Yes, it's the act we are interested in rather say the dysfunction itself.

I Okay, thank you.

CWN2We've got also, obviously people who have, patients with diabetes, and that can have a direct impact as well.

I Um hum. Have you ever asked a patient about erectile dysfunction?

CWN2On this ward?

I Yes.

CWN2No.

I No?

CWN2I have in other circumstances,

I In, right,

CWN2but, not erm,

I Not in this role?

CWN2Not as a normal, not in this role, it is not part of my normal assessment that we are concerned about which is more directly involved with the arteries supplying the heart.

I Okay, thank you. Has a patient ever raise the issue of erectile dysfunction with you?

CWN2I can't remember there being so.

I No? Okay. How do you feel about talking to cardiovascular patients about sexual activity and erectile dysfunction?

CWN2I don't have any problems with it. It really is a question, more of a question of an opening, and the context. It's not something I would want to raise up out of the blue just without being part of an overall assessment and erm, it doesn't really arise under normal circumstances. Er, it would come, be seen very artificial and strange to patients I think, if I was to raise it other than, when really we are talking

about the heart, and how they are going to get, what treatments we're likely to do, and what risk factors they have, and how we can improve their, their heart performance.

I Um hum. Okay, thank you. Who do you think is the best person to discuss erectile dysfunction with cardiovascular patients?

CWN2Well it will be a nurse, erm, whether it is a specific nurse, I would guess in general it is part of the rehabilitation programme, erm, so it would, would well fit in as part of that, and in terms of getting people back into, into normal activity,

I Yes,

CWN2so that, there is real actual concern for people who have had some sort of damage done to the heart, and there first concern is to get that repaired, so they are going to take it easy but, in that situation, should be referred onto a rehabilitation, rehabilitation programme, and it seems logical to be booked into that.

I More appropriate at that stage from cardiac rehab point?

CWN2yeah, yeah, and perhaps when we give them advice on, when they can start sexual activity, erm, we don't really give them advice if they have a problem with it, erm, and really I suppose it's at that later stage they will have a problem. If someone was to say well, you know, you can start sexual activity on such and such date, and, or you know, when you, when you feel up to it, run up and downstairs, whatever you want, erm, for what ever reason then, then, there would be a time I would get involved in it, you know,

I Yes,

CWN2but otherwise, it would be later in the, later in the rehabilitation programme.

I Okay, thank you. What do you think the barriers are to assessing erectile dysfunction from the patients perspective?

CWN2Er, well the patients, a lot of patients are embarrassed about it, some, a few are not, but it's something that is often a undisclosed problem that the patients may have, and they may say they don't, don't want to talk about it anyway. They feel embarrassed to talk about it, and I guess, if it could be raised as something that is a common problem, er, it would probably be helpful for them, you know, rather than, feeling they are all on there own and embarrassed and don't want to talk about it. The psychology of it is also a problem because, you know people who have had heart disease or, any sort of vascular disease, er, tend to worry about that sort of thing, and er, think they may be having problems, and, and their partners, they worry about it on their behalf, they don't want them to over exert themselves, so it could be, it's hard to tell if it is a physical or psychological problem that comes first, er, that's something that has to be assessed I guess.

I Right, thank you. What do you think the barriers are to assessing erectile dysfunction from the health care professionals perspective?

CWN2 Well again there can be embarrassment in raising it, and what we said about context, and a way of raising it that, that doesn't seem artificial or strange to the patient, or, or to the professional. Erm,

I I think you've almost, you know, in some answers earlier, you have sort of said that in this setting, you're more dealing with the problem in hand aren't you, the, the immediate cardiac, you know, acute problem aren't you? And it was almost as if you were suggesting that this isn't a priority for you or them at this point, would that be right?

CWN2 Yes.

I That was sort of what you alluded to earlier?

CWN2 Yes that's right, it would come as, as something strange. I mean when I am assessing a patient initially, erm, when the first come in, er, my assessment really covers the risk factors that are causing their disease in the first place, and my priorities are things like, you know their diabetes, their diet, their weight, their exercise, erm, and, and if I can assess all those things then hopefully not only their heart, but other vascular problems will be resolved as well.

I Okay, thank you. What do you think would make it easier to address sexual activity and erectile dysfunction in cardiovascular patients?

CWN2 I suppose, if there was something in writing, you don't have to talk about, just a check list, you know, these are, these are common problems that occur to a period of people with coronary vascular disease, indicate which of those affect you.

I Yeah,

CWN2 Erm, I think that might be quite a good idea. And er, it's just like a self assessment but also, it takes out a lot of the embarrassment and the thoughts that this is something special to me, it's a common problem, other people must have had it otherwise it wouldn't be on this list, you know?

I Yeah, yeah, an easy way in for the health care professional and the patients isn't it? Its' like saying I guess that's acceptable for me to talk about that, isn't it yeah. That's a good idea.

I Okay, thank you, and erm, the last question is what do you know about the treatment for cardiovascular patients with erectile dysfunction?

CWN2Erm, well I have read in the past the various, erm, ways of approaching it, the penis and or injections can help to create an erection, erm, artificial sort of stiffness, and I think wires inserted, erm, I can't say it's something I've, it's that recently, and my mind, it's in my head, if someone came to me for advice I would say that there are ways of approaching it, and if he wanted to I could look up and advise,

I yes,

CWN2the facts, but I haven't got it in my head the details of the treatment, but you would either find out, or approach somebody who is, yeah, more knowledgeable.

I Right, that's lovely, thank you very much.

Appendix 15.

I Okay, for the tape could you just tell me whether you're male or female?

CWN3Male.

I Thank you, and which age group do you fall into. 21 to 29, 30 to 39, 40 to 49 or 50 to 59?

CWN330 to 39.

I Thank you. How long have you been a qualified nurse?

CWN3Erm, just over a year and half.

I Right. Okay. So how long have you been in your current post?

CWN3The same.

I First job? Okay. What do you know about erectile dysfunction?

CWN3Erm, I know it's a possible side effect of some of the cardiac drugs,

I Okay,

CWN3That we use here.

I Okay, yes, anything else?

CWN3I am aware of some of the treatments for it.

I Alright, we'll move on as that's one of the questions later. What do you know about erectile dysfunction in cardiovascular disease?

CWN3Nothing.

I Okay. What do you think your role is in terms of erectile dysfunction in cardiovascular patients?

CWN3Erm, I don't believe we have a role.

I Okay, erm, I think I know the answer to these now, but, have you ever asked a patient about erectile dysfunction?

CWN3Well yes, just people who have been going for angiogram.

I Ah yes, yes, what do you ask them?

CWN3Er, if they're on, if they are taking any medications for.....

I Yes, okay. Er, has the patient ever raised the issue of erectile dysfunction with you?

CWN3No.

I How do you feel, would you feel about talking to er, cardiovascular patients about sexual activity and erectile dysfunction?

CWN3Er, I wouldn't feel too uncomfortable, although I would think it would be more of a subject for later on, when, you know, in community rehab.

I Yes, okay. Erm, who do you think is the best person to discuss erectile dysfunction with cardiovascular patients?

CWN3Community rehab.

I Okay. Can you expand on that a little?

CWN3 Well because they, they, rehab, our MI patients, erm, mostly about 5 days, and so we don't really get an in depth relationship with them, erm, and I think community rehab do.

I Right.

CWN3 You know the patient will trust them a lot more because they're visiting quite regularly.

I Right, so I guess from that you think it's someone who knows the patient a bit better, and has got a closer relationship?

CWN3 Yes.

I Okay, thank you. What do you think the barriers are to assessing erectile dysfunction from a patients perspective?

CWN3 What do you mean by that?

I Erm, what, what do you think might stop patients telling a GP or a nurse that they've got erectile problems, erm, what might stop them doing that?

CWN3 Erm, culture.

I Right, yes, absolutely, anything else?

CWN3 Probably embarrassment.

I Yes, okay. What do you think the barriers are to assessing erectile dysfunction from the health care professionals perspective? So what might stop you for example, or a GP or a doctor in hospital asking the patient about erectile dysfunction?

CWN3 Probably culture or a lot to do with culture.

I For the staff and the patient do you think?

CWN3No, erm, well, I think some, some staff and, erm, some patients, especially female staff.

I Yes, why do you think female staff in particular?

CWN3I think the female staff from ethnic backgrounds, because they're, they're brought up, erm, slightly, a certain way, and er, I think even though they're in this job they're not, I don't think they would feel comfortable talking about it.

I Yes, okay, thank you. What do you think would make it easier to address sexual activity and erectile dysfunction in cardiovascular patients?

CWN3If there was more literature on it that they could go through, I mean we have loads of literature on medicines etc etc. If they, you know, in the rehab booklets, there was something about that, I think that they might mention it, erm, and then we could approach it a bit more, and later on after they've read it.

I So is it sort of easier if it's written down somewhere and you can then, you know, say oh that, you know what I mean, refer to something that's written down, it's an easy way of opening up the subject.

CWN3Yes.

I And the last question, erm, that, you sort of briefly mentioned this, can you tell me what you know about the treatments for cardiovascular patients with erectile dysfunction?

CWN3Erm, Viagra.

I Yes, well done, yes. Do you know any more, or any other types of treatment? If you don't, don't worry.

CWN3I only know that one with, with the pump.

I The pump, right, okay, yes okay, yes vacuum device pump, yes, that's fine. Okay. Thank you very much.

Appendix 16.

I Okay, for the tape could you just tell me whether you're male of female?

CWN4Male.

I Thank you, and which age group do you fall into, 21 to 29, 30 to 39, 40 to 49 or 50 to 59?

CWN440 to 49.

I Thank you. How long have you been a qualified nurse?

CWN4Three and half years.

I Okay, and how long have you been in your current post?

CWN4Two and half years.

I Okay. What do you know about erectile dysfunction?

CWN4(long pause) Not so much really.

I Okay, anything at all, what it is? If you don't, don't worry.

CWN4Not really no.

I Okay. Do you know anything about erectile dysfunction and cardiovascular disease?

CWN4I know that certain medications have side effects that, that can affect it.

It's not something that I particularly, know much about, it's not something I'm particularly interested to be honest.

I Right, okay. Erm, what do you think your role is in terms of erectile dysfunction in cardiovascular patients?

CWN4I think patients need to be aware, I think patients need to, they need to approach the subject, I think it's very much a personal subject, from a male point of view I wouldn't want to be asked.

I Right, right.

CWN4If it was something that was a problem to me, I would want to bring it forward, I wouldn't want someone to ask me, I mean, you know, the girls on the ward, I wouldn't want them to ask me.

I Yes.

CWN4On the ward in general, not just because I work with these, but I wouldn't want to be asked, I wouldn't want, you know, I would want to bring up the subject if it was a problem for me really.

I Okay, thank you. Erm, have you ever asked a patient about erectile dysfunction?

CWN4No.

I No? Has a patient ever raised the issue of erectile dysfunction with you?

CWN4 Quite a few patients have, quite a few patients wives have asked.

I Oh right!

CWN4 Sometimes, sometimes they, they like I said, I think from a male point of view, it's something that's very personal, it's something that I presume you wouldn't want to talk about, but I, one or two patient's wives have said, 'by the way, can the medication be affecting it?'

I Right,

CWN4 'this is a new problem, can it be to do with the medication?', and then it gives you the opportunity to say, 'yes it can, we'll get the doctors to have a look and see if we can alter things'. So, it's, you know, they've mentioned it, rather than, you know, I approach the subject.

I Okay, how do you feel about talking to cardiovascular patients about sexual activity and erectile dysfunction?

CWN4 I think part the rehab thing talks about sexual activity, and I think there again, it's very much a personal thing, and I think it's, it's something that, that individual patients need to, er, start the topic if you like, because like I say, from a male point of view, it's something very personal, well I wouldn't want to be asked.

I Yes, okay. Who do you think is the best person to discuss erectile dysfunction with cardiovascular patients?

CWN4 Well, there again, from my own personal point of view, I think it should be the doctor. I think ideally it should be someone of the same sex.

I Right, yes.

CWN4 I think, it's a personal thing for a man, its even more personal for a man to be, discussing it with a young girl, if you know what I mean, it's very much a personal thing, and think that, if a male doctor, or if I had a problem myself, I would mention it, it would be to a male nurse or a male doctor, but it's something that I wouldn't want to be discussing with, with, a younger female person if you like, it's, like I say, I think from a male point of view it's very much a personal thing on somethings that's.....it's.....

I Okay, what do you think the barriers are to assessing erectile dysfunction from the patients perspective? So what do you think might stop them broaching the subject with you or a doctor?

CWN4 Well I think it's very much a, you know, it's very much a personal thing, and I think it's, I don't know, I think, it's only a problem if it's a problem to the individual person, to some people who's not a sexual active person, it's not the 'be all and end all'. To someone where it's very much a part of their relationship, then yes, it's a personal thing, I think, it's up to the individual to sort of, you know, like approach the subject.

I Okay, erm, what do you think the barriers are to assessing erectile dysfunction from the health care professionals perspective?

CWN4 Erm, I think if it's a new problem, I think if it's a new problem, and if it's a new medication lets say someone's started on, it's become a recent problem to them, rather than a long term thing.

I You said you wouldn't like, erm, thinking about health care professionals, what would, what is it that would stop you perhaps asking a patient routinely about sexual activity or erectile dysfunction. Is there anything?

CWN4I wouldn't ask.

I Can you, do you know why that is?

CWN4Yes because I think from a male point of view I wouldn't want to be asked myself .

I Right, right, okay.

CWN4I mean if it's a problem, then, I would want to, I, you know, if I had an issue with it I would like to think I could say to my doctor, 'this has become a new problem, this has become a new problem, and is it something to do with medications or something to do with heart disease or whatever'?

I Yeah, okay, thanks. What do you think would make it easier to address sexual activity and erectile dysfunction in cardiovascular patients?

CWN4I think, I think, if, if, if they had written literature, saying that these medications, can cause a problem, and, don't be ashamed to highlight it as a problem, I think people would be more willing to, I think maybe more able to broach the subject, but at the moment it's very much a subject we don't really talk about, and if it's something that's written down that says that, you know these medications, this could be a problem, then, maybe people would talk about it.

I Okay, and the last question, what do you know about treatment for cardiovascular patients with erectile dysfunction?

CWN4 Not a lot really other than, maybe changing their medications, I don't really know.

I Okay, nothing else?

CWN4 No, I think the environment has got a lot to do with it, I think, you know, we pull the curtains round and we think we're, we're in private, and we're not, and everyone in the rooms listening, I think that's why patients don't necessarily want to talk about it, and they don't want to raise the issue, the chap on the ward when his wife mentioned it was absolutely horrified, because there was another four patients in the room, and it's, and they think people can't hear and they can, so I think, environments got to do with it, I think if we did a nursing assessment, or talked to people about medications in private, then it would give them the opportunity to, you know, 'this is becoming a problem' whereas, it's something that people don't want to talk about.

I Yes, okay, thank you very much.

Appendix 17.

I Okay, for the tape, could you just tell me whether you're male or female?

CWN5Female.

I Thank you, and which age group do you fall into, 21 to 29, 30 to 39, 40 to 49 or 50 to 59?

CWN530 to 39.

I Thank you, and how long have you been a qualified nurse?

CWN5Eight and a half years.

I Okay, and how long have you been in your current post?

CWN5Two and a half years.

I Thank you. Can you tell me what you know about erectile dysfunction?

CWN5Not a great deal.

I Okay, anything at all?

CWN5Well, not a great deal.

I Okay, that's fine. Do you know anything about erectile dysfunction and cardiovascular disease?

CWN5Er, the only thing I really know is just about the effects of drugs,

I right,

CWN5 beta blockers and things like that, that's about it really.

I Okay, what do you think your role is in terms of erectile dysfunction in cardiovascular patients?

CWN5Erm, well my role is assessing, erm, chest pain patients, I think, and part of that is rehab, then I suppose my role is actually discussing that with patients, erm, and the effects, and like I say, the effects of drugs and things I know most about, so really, I should really discuss the side effects of some drugs with patients.

I Okay. Have you ever asked a patient about erectile dysfunction?

CWN5No. I have discussed it with patients, but only when they have brought it up with me.

I Okay, well that sort of answers the next question, which was, has a patient ever raised the issue of erectile dysfunction?

CWN5Not many, only a couple of patients, erm, and it's usually been, erm, they've already seen perhaps the doctor about it, or, first, but then they've gone on to tell me about it afterwards.

I Okay, thank you. How do you feel about talking to cardiovascular patients about sexual activity and erectile dysfunction?

CWN5Erm, I feel, I don't feel too uncomfortable with it, I suppose it's something, er, because of where I usually see patients, it's difficult to discuss those matters because it's not in a very private environment,

erm, I think if it was in more of a private environment it would be easier, I think if they bring it up it's always much easier to discuss, and I suppose I don't instigate a lot of conversation about it really.

I Erm, who do you think is the best person to discuss erectile dysfunction in cardiovascular patients?

CWN5Erm, I would guess it really depends on the patient. Erm, I mean some patients are going to respond better to males than they would females, or perhaps nurses rather the doctors, or visa versa. I think rehab nurses have an ideal opportunity to discuss it, but a lot of patients I don't think would be comfortable with that, or the fact that rehab nurses tend to be female might put them off, so, I think you just have to tailor it to the patient really.

I Okay, thank you. What do you think are the barriers to assessing erectile dysfunction from the patients perspective?

CWN5Er, ward environment I would say is a big issue, er, particularly if they come via ward 4, nightingale ward, where there is no privacy what so ever, erm, so I think that was one, and I, probably the fact that we don't bring it up, you know we don't start the conversation, if they have to bring it up it's probably harder to do than if they're asked about it.

I Okay, why do you think that might be?

CWN5Probably just to, they wouldn't, they perhaps wouldn't necessarily perceive that problem is due to what they have been into the hospital with, so that could be a reason.

I Yes, thank you. Er, what do you think the barriers are to assessing erectile dysfunction from the health care professionals perspective?

CWN5Er, well from my point of view probably knowledge, because I don't know enough about it to discuss it in any great depth, erm, and also probably just erm, if, if you've just met the patient and you don't know them particularly well, so you don't know how they would respond to actually discussing it with them, and environment again.

I Okay, thank you. What do you think would make it easier to address sexual activity and erectile dysfunction in cardiovascular patients?

CWN5Erm, well environment, having somewhere more private to discuss things like that, so clinic situation I think would always be easier. Er, I probably having been able to have some information for them to have a look at as well, you know, so they can be thinking about it.

I Okay, that's fine, and the last question, what do you know about the treatment for cardiovascular patients with erectile dysfunction?

CWN5Not a great deal at all, I don't know anything really.

I You don't know any treatments at all?

CWN5Well I know there's erm, Viagra but I know there are issue with giving that to cardiovascular patients anyway, because we have had issues with coronary angiography etc.... so I don't know a great deal about sort of indications and contra indications for it.

I Okay, thank you very much.

Appendix 18.

I Okay, for the tape, first question is could you tell me whether you're male or female?

CWN6Female.

I Thank you, and which age group do you fall into, 21 to 29, 30 to 39, 40 to 49 or 50 to 59?

CWN640 to 49.

I Thank you, and how long have you been a qualified nurse?

CWN6Qualified in '84 so..... 23 years.

I Thank you. How long have you been in your current post?

CWN6Erm, it will be 2 years in July the 31st.

I Okay, erm, can you tell me what you know about erectile dysfunction?

CWN6What generally?

I Umm hmm.

CWN6Erm, it can be physiological and psychological, erm, it's more likely to be psychological than physiological, and patients who have erectile dysfunction are usually seen early on, as far as I am aware, they, they do that side first because finding out if it's physiological is invasive involving catheters and dye, and that can be quite uncomfortable, but er, if they can't find a psychological problem then they will investigate a

physiological problem and then, they might be able to do something about it.

I Okay, thank you. Can you tell me what you know about erectile dysfunction in cardiovascular disease?

CWN6 Well, erm, drugs can cause erm, erectile dysfunction plus loss of libido which go together, plus if you have coronary artery disease, you've probably got disease in other arteries including the penile artery.

I Lovely, thank you. What do you think your role is in terms of erectile dysfunction in cardiovascular patients?

CWN6 Umm that's interesting, I erm, my main role is working with the day case patients, so a lot of patients that I see, erm, come in, they're already erm, they already know they have some, some degree usually of , of coronary artery disease, but, a lot of them are beta blocked using the new guidelines, so there's a lot of erm, Atenolol and Bisoprolol around, having said that, erm, a lot of patients we see, tend not to, have not expressed any problems, erm, sexually, I have to admit, doing day cases, it doesn't often come up, but I do try, and I think a lot of men are embarrassed about talking to a female, on the other hand we do get quite a lot of widowers and they are, they are absolutely horrified at thought that they might even have a girlfriend, so, I think sometimes one can be a tiny bit too proactive, but I think I do miss it off, yes.

I Okay, thank you. Have you ever asked a patient about erectile dysfunction?

CWN6Er, well its part of the questions when we, when we admit them because we need to know if they're taking anything like Viagra, because obviously we don't want to, start them on nitrates, erm, anyway, so it does come up. Having said that I'm bit careful about asking some of the, er, Asian gentlemen.....

I Right,

CWN6.....especially if their wives are there, they get embarrassed, but no we do ask, usually it's a 'oh no no no no'.

I Yes. Is the rationale explained, I guess it is because, because.....

CWN6Yes, I would say, 'do you take anything like Viagra'? I may blush or whatever, 'you know we need to know because, if we need to give you another drug, we want to make sure it doesn't interact badly'.

I Right, okay, thank you. Has a patient ever raised the issue of erectile dysfunction with you?

CWN6No, no.

I Thank you. How do you feel about talking to cardiovascular patients about sexual activity and erectile dysfunction?

CWN6No problem. I think it's really important, just because you've got heart disease doesn't mean to say you should stop, everything that is good in life, (laughs) and in fact sex is a good cardiovascular activity and it's something they should be doing, maybe they might want to change position perhaps, but, but no I've got no problem asking.

I Thank you. Who do you think is the best person to discuss erectile dysfunction with cardiovascular patients?

CWN6Ooh that's a good one, erm, can you turn it off whilst I, whilst I think?

(Thinks for a couple of minutes).

Erm, probably the person who should bring it up is the doctor when they first prescribe perhaps something like, a beta blocker, on the other hand maybe if they've got known coronary artery disease and they've been seen in rehab, maybe the rehab nurse would be the best person.

Erm, I think patients in the main probably would be more comfortable talking to a nurse rather than a doctor..... I think, they don't want to waste the doctors time, that's how they would perceive this subject I think, on the other hand, they probably wouldn't want to waste our time, so, I think, we would need to bring it up rather than them ask us.

I Yes, okay, thank you. What do you think the barriers are to assessing erectile dysfunction from the patient's perspective?

CWN6Oh, it's embarrassment, the fact that it's probably a girlie and probably a very young girlie asking him about sex, erm, as from my point of view, we have er, it can often come with their relative, and they can be translating, so the Asian population might have their daughter with them, and that will probably be excruciatingly embarrassing for them, erm, I suspect I don't know if they lie, but they certainly fudge, I think, erm, I think you've got to be very matter of fact, and that, just be, you know its part of life. I think it's also how you approach it, as well as them approaching it, so even if you're a young girl and you approach it,

once you have got over that hump, of embarrassment, you should be okay.

I Okay.

CWN6I think its more embarrassment.

I Thank you. What do you think the barriers to assessing erectile dysfunction from a healthcare professional's perspective are?

CWN6I think it's very much embarrassment, and especially if you're younger,

I think if you're older it's not quite so, because you've got more life experience, but if you're younger, and you're talking to an older man, 'cos there's all the other barriers, you know, a lot of people don't even think their parents have sex which of course is a lot pooey. Of course, even if they're seventy or eighty they could still be having sex, and, there is that perception just because you get to a certain age, you know, you stop having fun. So I think that can be, and I think we're all guilty of that to a degree.

I Okay, anything else barriers from the healthcare professional?

CWN6Embarrassment..... time, I would think, when you are thinking about everything else it probably is down the list, but on the other hand if you have got a inpatient, erm, it could it probably should be part of the discharge talk, erm, do you want, I've got a, when I was working as a student, up on, doing cardio thoracic surgery as a student, erm, many years ago, and erm, it was actually one of the things we discussed post op, we discussed when these patients could restart sexual activity and

this was back in 1982, though I think you need to, it needs to be part of, a system then it isn't forgotten.

I Okay, thank you. Erm, what do you think would make it easier to address sexual activity and erectile dysfunction with cardiovascular patients?

CWN6 Er, you need privacy, I, I think that is quite important, a curtain is not good enough, erm, especially if you have got someone is deaf, again, just because someone is deaf doesn't mean to say they are not going to have sex, erm, because you might be discussing very personal, so privacy..... and time, you don't want to be hurried, 'cos, there is going to be embarrassment, and you might like, might like, might need to discuss it and draw things out, and five minutes might not be enough, plus, you might need to involve the partner, you might not, there might be some sort of barrier there, but you might need to involve the partner as well.

I Okay, thank you and the last question, can you tell me what you know about the treatment for cardiovascular patients with erectile dysfunction?

CWN6 Umm, er, well providing they are not on nitrates you can normally give Viagra, erm, and that's probably about it I'm afraid, erm, I know there are other things you can use, you can give injections into the base of the penis, and, and do stenting, all that sort of thing, and pumps, and I would imagine that that sort of thing for erm, erectile dysfunction is the

same whether you are cardiovascular patient or not. I would think the most important thing is whether you're going to give, erm, a drug to enhance performance like Viagra, you would need to look at their medications.

I Okay, thank you very much.

Appendix 19.

I Okay, so for the tape, the first question is just could you tell me your gender male or female?

PN1 Female.

I Thank you, and what age category do you fall into, 21 to 29, 30 to 39, 40 to 49 or 50 to 59?

PN1 50 to 59 unfortunately!

I How long have you been a qualified nurse?

PN1 Since 1975, so a long time.

I Thank you, and how long have you been in your current post?

PN1 10 years.

I Can you tell me what you know about erectile dysfunction?

PN1 Well, that won't take very long, very little.

I Okay.

PN1 I know that its, er, its often a complication of hypertension and diabetes and it can also be the drugs used to treat both those conditions, erm, and that is about it, erm, I am a nurse practitioner at general practice and I try not to get involved with mens kind of genital health. I made that decision because as a nurse practitioner you can't be competent in

all areas, and I get sent all the gynae, so it seemed a fair swop, but if I had a man with these problems, I would obviously discuss them with him and ask him about them and then I would refer him to a male GP to take it forward.

I Okay, thank you. Can you tell me what you know about erectile dysfunction and cardiovascular disease?

PN1 Erm, as I say it can be erm, a problem with, a complication of hypertension and a complication with drugs that treat the hypertension, specifically things like Thiazides and Beta Blockers. Erm, I am sure it's to do with the blood supply, erm, but I don't really know anymore about that.

I Okay.

PN1 I'm afraid you're going to find this very easy as I know nothing.

I That's fine, thank you. What do you think your role is in terms of erectile dysfunction in cardiovascular patients? You have touched on that a little bit.

PN1 Cardiac, erm, certainly being, erm, open to them discussing it, you know, asking about if they have any side effects with the medication, erm, try not to be embarrassed so it's something they feel they can talk to me about, and then sign posting them to the right person who can help them.

- I Super, thank you. Have you ever asked a patient about erectile dysfunction?
- PN1 Yes, I have yes.
- I Can you expand on that a little?
- PN1 Just kind of erm, asked them if, largely when you start people on new drugs if they have had any side effects you know, and if they have noticed any impotence or anything like that, or they might mention it themselves.
- I Okay, well that brings me on to the next question, which is has a patient ever raised the issue of erectile dysfunction with you?
- PN1 Yes, they have yes.
- I Okay, and I guess you sign posted like you've said?
- PN1 Yes.
- I How do you feel about talking to cardiovascular patients about sexual activity and erectile dysfunction?
- PN1 It depends really which the patient is, and it is also a cultural issue because some of the Asian men really wouldn't want to talk to us about it, being a woman, and also the younger men, I probably would be a little bit embarrassed I have to be honest, and, erm, I try and keep a kind of cool, professional demeanour but, erm, largely because of my ignorance in the subject, erm, I would get them to see somebody else anyway as I don't want to give them any false information, but sometimes it seems it a psychological thing especially if their

depressed as well, in which case I would obviously try and explore that, and try and explore their mood and assess them to see if they are actually clinically depressed and if there is something I can do there, obviously if they are already on SSRI's or antidepressants they can also cause a problem, so you know that would be another issue to discuss.

I Okay, thank you. Who do you think is the best person to discuss erectile dysfunction with cardiovascular patients?

PN1 I don't think there is a best person, I think it's whoever is the best person for that patient. In our practice they probably would go and see, er, one of the male doctors although we've got a female doctor who is doing diabetes at the moment and is really enthusiastic in diabetes, and I think she has got an interest in the area as well. Erm, it could be that the cardiovascular nurse, you know, they're the ones who are going to be asked these questions, erm, especially if they've had, lets say an acute MI – 'when can I have sex again' and all these kind of things, it seems a natural thing you could bring into the conversation then as well.

I Okay, thank you. What do you think the barriers are to assessing erectile dysfunction from the patients perspective?

PN1 Just embarrassment, they won't want to mention it, especially if they're older and it's something that is taboo with the older generation, but likewise a younger person might be embarrassed about talking about it

because he feels he is somehow diminished from it and that he is losing his sexuality. So, erm, other barriers we've said either culturally, either older generations, younger generations the fact that I am a nurse, and a woman, they might not want to discuss it, plus I don't wear a uniform, I don't know whether patients will talk to nurses if they are wearing uniform about some of these things than others who are just wearing kind of mufty. Erm, sometimes if they come in with their spouse, they might actually be embarrassed to talk about it, and quite often older people do come in together, and then that can be more difficult to broach if the wife is there as well.

I Okay, thank you. What do you think the barriers are to assessing erectile dysfunction from the health care professionals perspective?

PR1 Lack of knowledge. I mean in my case it is pure total ignorance, so I need more information on it so I can actually give them more advice, erm, the only thing, because I work in general practice, nurse practitioner, is I see a lot of everything, you know, inevitably there are areas that you don't know about, and maybe you should, you should try and, er, have wider knowledge still, but it is easy just to, to focus on things that you know well and do well and maybe let other people, especially if you work in a big team, do things that you don't do. I think it would be very much harder if I worked in a general practice where maybe there was just me and one doctor or, you know a small practice where the onus is very much then on you trying to know everything, but where I work now, we have such a lot of experts, and we even have an

Urology GPs so it seems we can easily find somebody who will know a lot more about it, and we do tend to use that. It does make you lazy but, er, it's, it's good to have that, that support there.

I Okay thank you. What do you think would make it easier to address sexual activity and erectile dysfunction with cardiovascular patients?

PN1 It might be quite nice to have a hand out that you could give them, you know I am sure there are some leaflets but I haven't got any leaflets and I haven't seen any, but that would be quite nice that you can give them, especially if they seem quite embarrassed to talk about it. If I had a kind of, some written information about what it was, why it happened, what they could do to help it, that would be really good. Or, even better, a cardiac rehab nurse with an interest in it, then I could phone her!

(Laughter)

I Thank you, and the final question. What do you know about the treatment for cardiovascular patients with erectile dysfunction?

PN1 Erm, very little, erm, I mean I know that there's the Viagra and I know that there is the Caverject, but I don't know more than that. I don't even really know how they work.

I Okay, thank you very much.

Appendix 20.

I Okay, first of all, for the tape could you just tell me whether you're male or female?

PN2 Female.

I Thank you, and which age group do you fit into, 21 to 29, 30 to 39, 40 to 49 or 50 to 59?

PN2 50 to 59.

I How long have you been a qualified nurse?

PN2 33 years.

I Okay, and how long have you been in your current post?

PN2 Er, 5½ years.

I Okay, can you tell me what you know about erectile dysfunction?

PN2 Erectile dysfunction is failure to either achieve an erection or to maintain an erection.

I Okay, thank you. What do you know about erectile dysfunction in cardiovascular disease?

PN2 It can either be due to the disorder of the blood circulation or any tablets that they may be on, apparently beta blockers can cause erectile dysfunction.

- I Okay, thank you. What do you think your role is in terms of erectile dysfunction in cardiovascular patients?
- PN2 To make the patients feel at ease enough to be able to approach you about it, possibly bringing the subject up with them, giving them an opportunity to air their worries or ask any questions.
- I Okay, thank you. Have you ever asked a patient about erectile dysfunction?
- PN2 Yes.
- I Can you just expand on that a bit?
- PN2 Yes, just to, well I usually, I don't always bring it up obviously you've got to pick your patients, I mean you really shouldn't discriminate at any age, but obviously you wouldn't ask..... young men I would probably just say, you know, "have you got any troubles with getting an erection?"
- I Right, okay, has a patient ever raised the issue of erectile dysfunction with you?
- PN2 Yes they have actually, he was aged over 70 actually, I do remember it. It sticks out in my mind, yes, yes, so we discussed it and he was quite happy.
- I Right, okay, thank you. How do you feel about talking to cardiovascular patients and sexual activity and erectile dysfunction?
- PN2 I am happy to do it. I am not embarrassed.

- I Okay, good. Who do you think is the best person to discuss erectile dysfunction in cardiovascular patients?
- PN2 Erm, possibly, well the GP's obviously have a role to play but I don't think patients feel quite as comfortable talking about it with the GP, possibly a nurse may be more approachable.
- I Okay, thank you. What do you think the barriers are to assessing erectile dysfunction from a patients perspective?
- PN2 Total embarrassment I would think, failure, they feel it's their fault and it's a vicious circle then, but mainly embarrassment I would say.
- I Okay, thank you, and what do you think the barriers are to assessing erectile dysfunction from health care professionals perspective?
- PN2 I would say embarrassment with some, especially if it's a younger nurse, how to do it, and some patients probably wouldn't appreciate it you know, so it's assessing the patients, but I would say embarrassment would come into it.
- I Okay, anything else?
- PN2 Er, inexperience and not knowing that it causes it, obviously they will have done the course and things, but I would think it would be inexperienced as well.
- I Okay, thank you. What do you think would make it easier to address sexual activity and erectile dysfunction in cardiovascular patients?
- PN2 Erm, maybe a little bit more education once the patient has had the event if they have had an angina attack or a heart attack, if its

mentioned initially the patient will know what it is if it happens and will know to ask for help. If they don't know if it's anything to do with their disease they won't think to ask about it because they will be too embarrassed.

I And the last question, what do you know about the treatment for cardiovascular patients with erectile dysfunction?

PN2 I know that they can't have Viagra if they have had chest pains, erm, I'm not quite sure, I think that used to be the case, I am not quite sure if it still is. Erm, there are other things, er, there is quite a few other things you can have like pumps, er, I don't know exactly what it's techniques, 'mews' is it? I am not sure what it's called but it's something like that. There's a few things you can have other than Viagra.

I Okay thank you very much.

Appendix 21.

I Okay, so for the tape, the first question is can you just tell me what your gender is, male or female?

PN3 Female.

I Thank you, and which age group do you fall into, 21 to 29, 30 to 39, 40 to 49 or 50 to 59?

PN3 50 to 59.

I Thank you. Can you tell me how long you have been a qualified nurse?

PN3 Erm, 32 years.

I 32 years. Okay, thank you, and how long have you been in your current post?

PN3 Err, I've been here 6 years, 5 or 6 years.

I Okay. What do you know about erectile dysfunction?

PN3 Erm, what do I know about it? Er, well I know it's, erm, it's erm, a problem that is probably not, erm, asked about enough and not investigated enough and probably, erm, perhaps glossed over more than it should be really, err, and I know there's lots of different treatments such as Sildenafil, and external things that can be used and medications that can be used, but I am not an expert by any means.

- I Okay, thank you. What do you know about erectile dysfunction in cardiovascular disease?
- PN3 I know that people with cardiovascular disease are at higher risk of, erm, erectile dysfunction than, similar to diabetics have a higher risk of dysfunction.
- I Okay, thank you. What do you think your role is in terms of erectile dysfunction in cardiovascular patients?
- PN3 Erm, I suppose to, to erm, try and make it possible for the patient to let you know if there is a problem or try and approach the whole subject so they can, erm, they can tell you without, erm, being too embarrassed about it and, erm, refer them on to the appropriate people if they need help.
- I Okay, thank you. Have you ever asked a patient about erectile dysfunction?
- PN3 I have done yes. Probably more in the diabetic review maybe, it's something maybe you tend to think of with diabetes perhaps more than the cardiovascular disease, but yes we do, it is done, it is one of the things on our regular template that you know sort of question, we are meant to ask them really.
- I Yes, yes it's not on your one for your cardiac patients?
- PN3 It is yes, it is on both.
- I Oh right.

PN3 Yes sometimes its more difficult to, it depends whether they are coming in with their wives, it is sometimes more difficult to ask.

I Has a patient ever raised the issue of erectile dysfunction with you?

PN3 Erm, yes they, a cardiovascular

I Yes, yes

PN3 disease patient? Erm, yes we have had two patients with peripheral vascular disease recently, erm, yes not very often I suppose though.

I Okay, thank you. How do you feel about talking to cardiovascular patients about sexual activity and erectile dysfunction?

PN3 I don't think I find it very easy really, err, I probably would refer them to one of the male doctors to discuss it if I thought there was a problem or that perhaps they hadn't told me and I thought that was underlying. Sometimes patients will tell that they are not happy with a particular medication, maybe a beta blocker or something, and you read between the lines that maybe there is a problem and they haven't actually said, and then you can refer them to one of the male doctors and sometimes they, and you can put it on the screen that you think there might be a problem, and they sometimes then tell them.

I Yes, okay. Who do you think is the best person to discuss erectile dysfunction with cardiovascular patients?

PN3 Who is the best person? I suppose it is anybody who, anybody who has seen them, er, for their routine reviews, erm, who they can talk to,

it doesn't really matter who it is, just if they feel comfortable with that person to tell them.

I Okay, thank you. What do you think the barriers are to assessing erectile dysfunction from the patients perspective?

PN3 Erm, I suppose it is quite difficult for the patients to raise the subject with somebody they don't know very well, who maybe a woman or someone who is younger than they are, erm, erm, I suppose if they have some sort of life threatening event you know, if they have had an MI or something, they, they might, you know they might think well this is, erm, you know, it's not something I need to, I shouldn't be worrying about this when there's other, when other things have been going on, you know, more life threatening you know people might think I'm being, making a fuss sort of about something like this when it's there are other more important things which isn't necessary the case.

I Okay, thank you. What do you think the barriers are to assessing erectile dysfunction from the health care professionals perspective?

PN3 I suppose you, erm, it's difficult not to, I mean, every patient that comes for a review there are lots of different things you have to assess, sometimes there's other problems with medication, erm, blood pressure, erm, all the CKD stuff now as well, so you are still trying to sort out a lot of things maybe in a short time, and maybe the erectile dysfunction doesn't get a very big, you know, maybe it's not seen as an important thing as it should do really.

I And that's from the health care professionals point of view you think?

PN3 Well I suppose you, you are perhaps concentrating on other things, erm, and erm, I suppose barriers is you have got your own, I suppose your own views, or your own views on the subject, erm, you perhaps feel embarrassed if you know the patient quite well previously anyway, erm, erm. That's it really.

I Okay, that's fine thank you. What do you think would make it easier to address sexual activity and erectile dysfunction with cardiovascular patients?

PN3 Erm, well I would imagine it is easier for men to talk to a male nurse or a male doctor than it is for them to talk to a female nurse, erm, but that's quite difficult in general practice because most of the nurses, most of the practice nurses, they'll all be female won't they? Erm, and, and you need to have privacy don't you, you need to have time, for you know, to give patient time to pluck up courage to ask you, erm, and, and as I say there are always other things that need sorting out that perhaps take more precedent, erm, I don't know about what would make it easier really.

I Okay, and the final question, what do you know about the treatment for cardiovascular patients with erectile dysfunction? You have mentioned some of them previously didn't you?

PN Er, well there's the erm, there's obviously the Sildenafil's and those types, erm, there's external erm, erm, pumps and that sort of thing,

erm, there's something er..... come on, what's it called, apomorphine,
apomorphine, is it sublingual tablet? Erm, and injections, caverject,
erm..... that's about all I can think of.

I Okay, thank you very much.

Appendix 22.

I So for the tape, could you just tell me whether you're male or female?

PN4 I'm female.

I Thank you, and could you tell me which age group you fall into, 21 to 29, 30 to 39, 40 to 49 or 50 to 59?

PN4 50 to 59.... Just!

I Thank you. How long have you been a qualified nurse?

PN4 Since 1969.

I Right, I'll work that one out! How long have you been in your current post?

PN4 18, just short of 19 years.

I Okay, lovely. Can you tell me what you know about erectile dysfunction?

PN4 Erectile dysfunction is a horrible side effect of a lot of medications, it also occurs in hypertension, heart disease, diabetes and various things.

I Okay, thank you. Can you tell me what you know about erectile dysfunction and cardiovascular disease? You just touched on some of it.

PN4 Some of it is due to the poor blood supply, and some of it is due to medication they are taking, and I think some of it is psychological when they have had heart problems they are frightened.

I Right, yes. Thank you. What do you think your role is in terms of erectile dysfunction in cardiovascular patients?

PN4 I do try to remember to ask them, if they are having problems, erm, I don't prescribe but I do ask them, you know, if they have had any of these problems, look at their medications is there anything we can change, and then refer them to one of the GP's for, for examination and medication.

I Okay, thank you. Has a patient ever asked you about erectile dysfunction?

PN4 The odd one, yes.

I Right.

PN4 Sometimes it might be a month or two after I've brought it up before.

I Right.

PN4 They will then bring it up again, you know what you said last time 'name', well yes.

I Okay, and the next question is have you ever raised the issue of erectile dysfunction, erm, have you ever raised the issue of erectile dysfunction?

- PN4 Yes, I have with diabetics and the heart disease. I tend to give them the, the 'man matters' leaflet if they, you know, are a bit like this (gestures to show uncertainty), and not wanting to discuss.
- I Okay, thank you. How do you feel about talking to cardiovascular patients about, about sexual activity and erectile dysfunction?
- PN4 At first I used to think you know 'how do I do it?', but now I've got, I think, yes it's another part of the process, be up front with it and just say it.
- I Okay, what do you think changed?
- PN4 Probably my confidence.
- I Yes, okay, thank you.
- PN4 And the fact that now, there is something more to offer them, you know, at one time we didn't have anybody to refer them on to particularly apart from neurologist, the drugs were very limited, but now we have a bigger range of drugs, and I think a better service. It's no good opening people's hopes up if there is nothing to go.
- I Right, okay. Who do you think is the best person to discuss, to discuss erectile dysfunction in cardiovascular patients?
- PN4 I think, those that know us, and trust us, as practice nurses, I think it's very good to open it up. I think, quite often though they prefer to talk to a male about the actual, in and outs of it.

I Okay, thank you. What do you think the barriers are to assessing the erectile dysfunction from the patients perspective?

PN4 I, I certainly wouldn't like run, the examination or anything to see what the blood flow was like, I wouldn't feel comfortable with that at all, erm, but apart from that I think sometimes they feel that its one of those things, I have had it..... it's just one of those things I'm getting older and

I Right, so in your experience do you not really think that patients have got any, there's any barriers that stop them talking to you?

PN4 Oh I think, yes there are, lots of barriers. Traditional barriers you don't talk about such things, such as sex, especially to another woman if it's not your wife, even if it is a nurse, and they often think there is nothing there to, nothing anybody can do about it. They have heard of Viagra, but Viagra doesn't apply to them, quite often, or the people who do ask for it are ones on Nitrates and can't have it.

I Okay, thank you. What do you think the barriers are to assessing erectile dysfunction from the health care professionals, health care professionals perspective?

PN4 Until I'd done, you know, a couple of courses and learnt more about it, I wouldn't have brought the subject up deliberately, because I didn't know what I was talking about. I think once you know a bit more about what you're talking about you can explain to the patient why these drugs do this and there might be something different. It's, you know, much easier because you not, you have got something to offer them at the end of it, or hopefully got something to offer them.

I Okay, thank you. What do you think would make it easier to address sexual activity and erectile dysfunction in cardiovascular patients?

PN4 I think it is just training and getting used, you know, used to saying the words to them, and using words that they might understand.....
without being crude.

I Thank you, and the last question, what do you know about the treatment for cardiovascular, er, patients with erectile dysfunction?

PN4 Well there is as I say, there's the three drugs now on the market, and we send them for things like Muse and, inserts if they're really keen, vacuum pumps.

That's all really.

I Okay, thank you very much.

Appendix 23.

I OK, for the tape, could you just tell me whether you're male or female?

PN5 Female.

I Thank you, and could you tell me which age group you fall into, 21 to 29, 30 to 39, 40 to 49 or 50 to 59?

PN5 The last one (laughs).

I Oh dear! Thank you.

PN5 By a week!

I Aw, only just then. How long have you been a qualified nurse?

PN5 Qualified..... 29 years.

I Okay, thank you and how long have you been in your current post?

PN5 9 years.

I Can you tell me what you know about erectile dysfunction?

PN5 Erm, it can be caused by psychological problems or, physical problems and erm, erm, it's a matter of treating it appropriately.

I Yes, okay. What do you know about erectile dysfunction cardiovascular disease?

PN5 Er, quite a lot of it is due to, erm, circulatory problems or drugs, and maybe things, erm, psychological problems as well, due to, cardiac problems.

I Right, okay, thank you. What do you think your role is in terms of erectile dysfunction and cardiovascular patients?

PN5 An advisory role really, and a referrer role, and being willing to ask the questions appropriately, and for, to act on the results, erm, referring to the right person.

I Thank you. Have you ever asked a patient about erectile dysfunction?

PN5 Yes, in a round about way.

I What do you mean by that?

PN5 Erm, asking if they have any physical problems. I do, with drug treatment.....

I Yes.

PN5er, especially with beta blockers and things like that, I do say to them before they start them, that they may have a problem and come back, erm, otherwise it's a bit more of a general thing really, are they having any physical problems or anything they want to tell us? I don't specifically say it. I do tend to with diabetics but not, not so much with heart disease.

I Right, okay thank you. Has a patient ever raised the issue of erectile dysfunction with you?

PN5 Yes, yes.

I Do you find that happens quite frequently?

PN5 Erm, fairly frequently yeah, yeah, the more I know them, they seem to be able to come out with it a lot more, and they seem to trust you a lot more.

I Okay, thank you. How do you feel about talking to cardiovascular patients about sexual activity and erectile dysfunction?

PN5 I, I think the cardiovascular ones, I tend, I can talk to them quite easy if they bring it up. I admit, I don't ask them very much. I warn them, but I don't ask them.

I Yes, so you find that if they raise the issue you're alright?

PN5 Yes.

I Okay, who do you think is the best person to discuss erectile dysfunction in cardiovascular patients?

PN5 To discuss it? Anybody who feels appropriate, you know who they feel they can confide in, erm, not necessarily for that person to treat them, but to discuss it.

I Yes, okay, thank you. What do you think the barriers are to assessing erectile dysfunction from the patients perspective?

PN5 Erm, embarrassment usually, but usually the only thing, they get, other than that, they are quite happy.

I Okay.

PN5 Trust.

I Okay, what do you think the barriers are to assessing erectile dysfunction from the health care professionals perspective?

PN5 Erm, my perspective, I don't have enough knowledge, I don't treat it specific, you know, to ask specific questions, I just deal with the referrals and refer on really.

I Yes, yes.

PN5 Erm, barriers I would imagine from who ever I would refer it on to, is erm, usual ones, of who, where the referral goes, how long it takes for, how long it takes for treatment and investigations

I The only barrier for yourself is lack of knowledge?

PN5 Yes, and inability to be able to like prescribe, or anything like that.

I Right, okay thank, you. Erm, what do you think would make it easier to address sexual activity and erectile dysfunction in cardiovascular patients?

PN5 Me probably (laughs) yeah, me, it's just knowledge and erm, involving things in your normal ramble that you do every day. It's adding that in that's probably where things aren't right at them moment, but I don't have a routine to ask about it. Erm, so that's the barrier for me, it's just knowledge and getting a routine.

I Okay, thank you. And the last question, er, what do you know about treatment for cardiovascular patients with erectile dysfunction?

PN5 Not a huge amount.

I No?

PN5 Erm, I presume medication, but I, contraindications and things, erm,
erm, no I don't particularly know.

I Okay, thank you very much.

Appendix 24.

I Okay, for the tape could you just tell me whether you're male or female?

PN6 I'm female.

I Thank you, and could you tell me which age group you fall into, 21 to 29, 30 to 39, 40 to 49 or 50 to 59?

PN6 40 to 49.

I Thank you, and can you tell me how long have you been a qualified nurse?

PN6 10 years.

I Okay, and how long have you been in your current post?

PN6 18 months.

I As the practice nurse?

PN6 Here?

I Yes.

PN6 Yes, I have been a practice nurse for 5 years in October.

I Lovely, thank you. What do you know about erectile dysfunction?

PN6 Erm, in my role as practice nurse?

I Generally.

PN6 Or, generally, erm, as I work er, part time as well as a cardiac rehab nurse. Erm, basically it can be a precursor to coronary heart disease, erm, evidence has shown that, erm, there can be up to 50% can't there, of men who have erectile dysfunction, erm, before actually, you know, realising that they've got heart disease. Erm, but, it's caused by a build up of erm, atherosclerosis, erm, it can be caused by other contributing factors like smoking, diabetes, erm, medications as well such as beta blockers, erm, diuretics, Spironolactone and, and also just psychological problems as well.

I Thank you. What do you know about, you have touched on some of this but what do you know about erectile dysfunction in cardiovascular disease.

PN6 Yeah, pretty much as I said really that, you know, basically if you are looking at heart disease as being a build up of plaque in the arteries that, that also happens in other areas of the body such as the penis.

I What do you think your role is in terms of erectile dysfunction in cardiovascular patients?

PN6 Erm, I think it is very difficult, erm, with patients, it depends in what context, I actually find it easier to talk to patients who, have had MI, recent MI and bring that into conversation, erm, where you can see that, sometimes it can be due to a lack of confidence, erm, and more sort of psychological problems, than, sort of bringing up in as just part of the general coronary heart disease review, particularly if it's

somebody who you know is well, who you see on a regular basis for other things, erm, and they particularly may have had their MI many many years ago really, erm, I mean ob, obviously, yes, you know, you sort of ask the question but, erm, I think it can be quite awkward, at times. I think it's, it's just an awareness thing, but you know bringing it up and making them sort of feel, erm, trying to put them at ease, that we **expect** or that it can happen, as part of having cardiovascular disease.

I Right, thank you. Again you have sort of answered this question really, that, the next question is have you ever asked a patient about erectile dysfunction?

PN6 Yes.

I Do you ask them routinely?

PN6 Erm, I have to say, no. It depends who the patient is and in what context really, erm, probably I should do more, it doesn't come up as part of our, or it's not included as part of our template etc..... erm, I, I, it depends pretty much on peoples history really, erm, it's with certain people on certain medications for example, I would erm, I would mention it, I would mention it obviously if there is history on the computer of, of impotence, if they had been to see the GP, erm, sometimes it's even prior to them being diagnosed as having heart disease, erm, and with the combined CHD and diabetic patients as well, erm, but it tends to be the medications and things that flag it up to me.

I Right, thank you. Has a patient ever raised the issue of erectile dysfunction with you?

PN6 No, no, never.

I Okay. So how do you feel about talking to cardiovascular patients about sexual activity and erectile dysfunction?

PN6 Again, I, I think it depends, erm, on the client really, erm, I think some of the younger, erm, patients, erm, feel a little bit uncomfortable at first, one of, one of the areas that you can bring it up on, or I have done, is particularly with the smokers, erm, to say that, you know, did they, were they aware that if they were smoking and that they, you know, went on to develop cardiovascular disease, they had an MI etc, erm, that they were more likely to go on to develop erectile dysfunction, and erm, and it shocks quite a lot of them, they're not, they're not aware of that, erm, in, in some of the older men, erm, they seem to be quite happy talking about it, erm, yes, yes.

I Okay, thank you. Who do you think is the best person to discuss erectile dysfunction in cardiovascular patients?

PN6 I suppose it is the nurse really. I think you, you know, there are still those barriers there aren't they, you know, you're a female, he's a male, and it's, you know, are you crossing the barrier, asking people about their sexual function really? Erm, you, you just hope your able to come across in a way, you know, that you are very very professional and that you are explaining the reasons why you are wanting to know

what you are wanting to know, and that, you know, were they aware that there are things are available, that, you know, could actually help, or they could have their medication changed etc.....

I Okay, thank you. What do you think the barriers are to assessing erectile dysfunction from the patients perspective?

PN6 Erm, communication, erm, religion as well, yes, I think, and yeah, I think for, yeah, with a lot of our Asian men, erm, it's, it's something that, you get the impression that they wouldn't tell you even if they did have the problem, and then, language could be a barrier, and I wouldn't be able to bring in one of our Asian ladies who work as health care support workers because they wouldn't feel comfortable.

I In terms of interpreting?

PN6 Interpreting, they would feel comfortable asking those sort of questions. So that's, that's a barrier.

I Do you think that's one of the reasons that people haven't ever raised the issue with you?

PN6 Possibly, yes possibly.

I Okay, thank you. So what do you think the barriers are to assessing erectile dysfunction from the health care professionals perspective?

PN6 Erm, probably knowing how to ask the right questions and, erm, as I say, you know, putting the patient at, at ease and just, erm, really explaining to them reasons, the reasons why you are asking the questions first I think, erm, I think a lot of health, I think the main

barriers still are, if a lot of the health professionals, in, in this situation who are seeing, er, cardiovascular patients just to do these regular check ups, you've still got this, male / female and I still think that's the biggest barrier.

I Yes.

PN6 I think that, you know, women don't have a problem asking women about their sexual problems or function etc, for example when they come to have smears, and, although it's uncomfortable going for a smear, women expect to be asked those type of questions at that kind of, erm, interview, erm, whereas I don't think men expect to be asked about erectile dysfunction or sexual problems when they just come for a CHD review.

I Yes.

PN6 Particularly if they are fit, well and healthy, you know, in other ways really, and most of our patients are these days, I mean in my CHD clinic I, I'm seeing patients who are probably in a better state of health than they were 10, 15 years ago. I think that, you know, is a bit of an awkward area.

I Thank you. What do you think would make it easier to address sexual activity in erectile dysfunction in cardiovascular patients?

PN6 I think some of those barriers are being broken down, I think some of the leaflets we give patients now, erm, particularly when they have been in hospital if they have had an MI, if they've had, erm, surgery, all of them actually address those issues now, and I think, you know, they

may be surprised at the time to actual read it themselves, but once, once they've read it, you know, I would hope that, erm, that they are not surprised to be asked the questions, erm, that's why I like, if, if I am seeing patients at home when I'm doing the cardiac rehab work, then again I try and introduce it then, I ask them if they have read the literature that they have been sent home with, and then, you know, you can sort of, there is obvious questions that you want to ask them about the literature that they have read, and I sort of get round, round to, you know, sort of sexual function etc..... from there.

I Okay, and the last question, what do you know about the treatment for cardiovascular patients with erectile dysfunction?

PN6 Erm, biggest thing really is, is just to avoid, I mean, you know, what's available now for, erm, for men with erectile dysfunction, but, but just to avoid nitrates with them, erm, blood pressure er, medication as well obviously, you know, dependent on what they're on really, erm, can be difficult. Obviously because we don't recommend, recommend the medications, I don't know enough about medications for erectile dysfunction and what the side effects for the medications can be, you know, combined with those, I just sort of know them in groups really, sort of say, you know, that flags up, you know, rings a bell it shouldn't, I can't recommend anything, go to the doctor, erm, and have x, y and z, when they're, you know, on Isosorbide and they're on Atenolol, you know, I mean, I certainly **recommend** that they go and speak to the GP.

I Have you heard anything about any other treatment other than the tablets they can take then?

PN6 Erm, yes, I mean, sort of vacuum devices and, erm, you know, various things like that, but, I will be honest I haven't looked into it enough, erm, to give, to give probably the best advice really.

I Okay, thank you very much.

Appendix 25.

I Okay first of all first of all, for the tape, could just tell me your gender,
male or
Female?

CR1 Female.

I Thank you, and your age group is it 21 to 29, 30 to 39, 40 to 49, 50 to
59?

CR1 50 to 59.

I Thank you. How long have you been a qualified nurse?

CR1 30 years.

I Okay, and how long have you been in your current post?

CR1 Err, 3 years.

I Okay. Can you tell me what you know about erectile dysfunction?

CR1 Not a lot, I'm really not sure.

I Okay. Anything at all?

CR1 I know that certain cardiac drugs do affect the sexual activity and also
sometimes patients have problems from a psychological point of view
as well.

I Right. Okay. Thank you. What do you know about erectile dysfunction cardiovascular disease?

CR1 Nothing really.

I Okay. That's fine. What do you think your role is in terms of erectile dysfunction and cardiovascular patients?

CR1 If, erm, they did say that they had got a problem I would advise them to go and see their GP, or if they had a hospital appointment to discuss it with the consultant.

I Thank you. Have you ever asked the patient about erectile dysfunction?

CR1 No.

I Has a patient every raised the issue of erectile dysfunction with you?

CR1 Yes, yes.

I Could you expand on that a little bit? What did they say, what did they say the problem was and what did you do about it?

CR1 Erm, they said they were having problems with their sex life and, erm, and I recommended that they went to see the GP about it, and the other chap, err, he'd been given his beta blocker with the information leaflet in it, and he was glad he had because he realised that was why he was having problems. He said it had been going on a while but he had not really associated it with his medication, he had associated it

with his cardiac problem and I advised him to go and see his GP and told him there were things that could be done to help him.

I Right thank you. Erm, how do you feel about talking to cardiovascular patients about sexual activity and erectile dysfunction?

CR1 I suppose if I knew more about it and I was more confident about it I could talk to them about it, but it is something that is just not discussed in great depth when you go on any training days or anything really.

I Okay thanks. Who do you think is the best person to discuss erectile dysfunction with cardiovascular patients?

CR1 Oh gosh, I couldn't really answer that one, erm, you would send them to their GP but the GP's are so busy, and its so quick I suppose that's not the best place to send them, but I couldn't really say that there is anybody suitable, to be able spend the time with them to discuss it.

I Okay thank you. What do you think the barriers are to assessing erectile dysfunction from the patient's perspective?

CR1 I think its embarrassment really, and us being female, so perhaps if there were males they would be more forward with it.

I Okay, anything else you can think of?

CR1 Not really no.

I Okay thank you. Erm, what do you think the barriers are to assessing erectile dysfunction from the health care professionals perspective?

CR1 I think lack of knowledge and perhaps the time factor because it's not something that you can just gloss over especially if they say they are having problems. I think it's an education issue really.

I What do you think would make it easier to address sexual activity and erectile dysfunction in cardiovascular patients?

CR1 Education, and more time.

I Okay and final question what do you know about the treatment for cardiovascular patients with erectile dysfunction?

CR1 Er, well, the two, the only two that I have dealt with the GP's gave them Viagra type medication.

I Okay. Do you know anything more about Viagra or any other drugs?

CR1 Not really no.

I No. Okay thank you very much.

Appendix 26.

I Okay, could you just tell me for the tape about your gender, whether you're male or female?

CR2 Female.

I Thank you, and which age group do you fall into 21 to 29, 30 to 39, 40 to 49, 50 to 59?

CR2 30 to 39.

I Thanks. How long have you been a qualified nurse?

CR2 Er, about 10 years.

I Okay, and how long have you been in your current post?

CR2 Er, 5.

I Okay, can you tell me what you know about erectile dysfunction?

CR2 Not a lot, it occurs in, er, 1 in 10 men, and about 2.3million people, or males have it, suffer from it.

I Right. Have you been doing some reading?! (Laughter)

CR2 No.

I Anything else you know about it?

CR2 No.

I Do you know how.....?

CR2 Well it will be like, it can happen if they're on beta blockers. If they're taking beta blockers.

I Okay, thank you. What do you know about erectile dysfunction cardiovascular disease?

CR2 Not a lot really, only, well just beta blocker induced, that's all really.

I Thank you. What do you think your role is in terms of erectile dysfunction in cardiovascular patients?

CR2 Offering them support and advice and referring them to the GP if it does happen, erm, just reassuring them that it is quite common and that it's not abnormal.

I Fine, thank you. Have you ever asked a patient about erectile dysfunction?

CR2 No.

I Has a patient ever raised the issue of erectile dysfunction with you?

CR2 Yes, only about twice though.

I Right, and what happened in that situation?

CR2 As it was, we discussed it and said it was probably due to the beta blocker, and made sure he wasn't anxious about resuming sexual activity, and erm, just referred him back to his GP.

- I Okay. Thank you. How do you feel about talking to cardiovascular patients about sexual activity and erectile dysfunction?
- CR2 Not comfortable.
- I Why's that?
- CR2 Well it depends on the patient really, but I think it's worse sometimes with somebody in your own age group. It's just not an easy subject to broach is it?
- I No. What makes you feel like that? Is it anything specific?
- CR2 No it's just, its just people don't talk about it generally do they?
- I Thank you. Who do you think is the best person to discuss erectile dysfunction with cardiovascular patients?
- CR2 Probably the nurse. Cardiac rehab nurse.
- I What makes you think that?
- CR2 Because we have more time to talk to him about it, and they probably have, most of them will have a better relationship with us than they do with the GP as they don't really see the same GP, whereas they see the same cardiac rehab nurse more than they will the GP.
- I Okay thank you. What do you think the barriers are to assessing erectile dysfunction from the patient's perspective?
- CR2 He would feel inadequate.
- I Okay.
- CR2 If he can't get and erection, especially the younger males.
- I Yes, anything else?

CR2 No.

I Okay, thank you. What do you think the barriers are to assessing erectile dysfunction from the health care professional's perspective?

CR2 Just the embarrassment isn't it? Lack of knowledge as well isn't it, around it.

I Okay, thank you. What do you think would make it easier to address sexual activity and erectile dysfunction with cardiovascular patients?

CR2 Having more knowledge around, around the problem and knowing what you should be advising.

I Thank you, and final question, what do you know about the treatment for cardiovascular patients with erectile dysfunction?

CR2 None.

I You don't know anything?

CR2 No, its Viagra int it? I don't know.

I What do you know about Viagra?

CR2 Other than Viagra, I don't know about anything else.

I Do you know anything specific about Viagra or.....

CR2 No, just that it's a treatment.

I Okay, thank you very much.

Appendix 27.

I Okay, for the tape could you say whether you're male or female?

CR3 Female.

I Thank you, and which age group do you fall into, 21 to 29, 30 to 39, 40 to 49 or 50 to 59?

CR3 30 to 39.

I Thank you. How long have you been a qualified nurse?

CR3 Erm, 12 years.

I Thank you, and how long have you been in your current post?

CR3 About 5 years.

I Okay. Can you tell me what you know about erectile dysfunction?

CR3 Erm..... yes, I can do, of course, erectile dysfunction, erm, well basically when a man isn't able to get an erection, erm, do you want to know how it's caused? Or.....

I Whatever, just say whatever you want.

CR3 Right, well the way we come across it at work, they do, it does seem to be quite common with the tablets that they're on, erm, or the underlying cardiac disease, erm, and like I say, they are not able to get an erection or maintain an erection usually.

I Okay, thank you. You sort of touched on this next answer a bit. What do you know about erectile dysfunction cardiovascular disease?

CR3 Erm, well like I say, just that it is, its not uncommon, it is quite, you know, it seems to be quite common amongst them, and not just because of the tablets that they're on, it can be the underlying cardiovascular disease as well from my understanding.

I Okay, thank you. What do you think your role is in terms of erectile dysfunction in cardiovascular patients?

CR3 Erm, asking patients if they have got any problems in that area, erm, although I am not always very good at that, erm, I do find it a little bit embarrassing but ideally my should role be to ask the, let the patients know it can be a side effect of the tablets, erm, and ask them directly if they are experiencing any problems and if they were, ask them to see their GP about it.

I Okay, have you ever been asked, has a patient ever asked you about erectile dysfunction?

CR3 Yes, yes, I am always a bit surprised when they do sometimes directly come out with it, erm, but yes I think most recently was a TIA patient and he'd had er, problems, and I'd asked him, had he got any general problems or concerns he'd got, and he very politely said "well yes I have, but they're in that department down there, and I wouldn't like to discuss it with a young lady, and I will discuss it with my GP".

- I Thank you, and have you ever asked a patient about erectile dysfunction?
- CR3 Yes I have done, erm, usually when I ask about the tablets, if they're experiencing any problems, usually when they get to the beta blockers I say this can be a side effect.
- I Okay, thank you. How do you feel about talking to cardiovascular patients about sexual activity and erectile dysfunction?
- CR3 I don't like it , I feel, erm, its just embarrassing, although some, if when people ask me about it, erm, I'm alright, you know if they've broached it, but it's if erm, I have to broach it, its just embarrassing, but I'm trying, because its, you know, otherwise they can sit there suffering.
- I Okay, thank you. Who do you think is the best person to discuss erectile dysfunction in cardiovascular patients?
- CR3 I think probably the rehab nurses because they have got the most to do with them, and you know, the GP's don't routinely see them, and the practice nurse may only see them every 12 months at their yearly review, so it should be brought up then, but I think we should do.
- I Right, thank you. What do you think the barriers are to assessing erectile dysfunction from the patients perspective?
- CR3 Erm, I think they would be embarrassed to mention it in the first place, erm, you know, which is understandable. So I think that would be the main thing, embarrassment, and also on your visits, if they have got

relatives present you know it is going to be very difficult for them to mention it. I can't think of anything else.

I Yes, okay, thank you. So what do you think the barriers are to assessing erectile dysfunction from the health care professionals perspective?

CR3 I just think it's embarrassment. I think, erm, yes, I think that's, that's the only reason.

I Okay, thank you. What do you think would make it easier to address sexual activity and erectile dysfunction in cardiovascular patients?

CR3 Erm, I don't, I don't know really, I think just sort of biting the bullet and asking, and I think if I did it more and more I would be confident to do it more and more, although I probably would still have a problem with the older generation, I don't really like to go there, but, erm, I don't know what could make it easier, maybe, erm, getting, learning more about the condition itself, and maybe then I would feel happier to do it.

I Okay, thank you, and the last question, what do you know about the treatment for cardiovascular patients with erectile dysfunction?

CR3 Erm, well they are not meant to use Viagra I don't think, let me think now, this is awful, I should know this! Erm, I am sure Viagra is contraindicated with their medications, but then I am not sure if they can't, if it is completely. There is, no, it is contraindicated, but there is another one, something beginning with 'S', this is, I am sure there is

something they can use medication wise, but I am not sure what it is,
but there are other little things that they could try,

I Okay,

CR3 which I could refer them on to. Okay?

I Thank you very much.

Appendix 28.

I Okay, for the tape can you just say whether you're male or female?

CR4 Female.

I Thank you, and which age group do you fall into, 21 to 29, 30 to 39, 40 to 49 or 50 to 59?

CR4 40 to 49.

I Thank you. How long have you been a qualified nurse?

CR4 Er, 1991 I qualified, about 18 years Gemma.

I Okay thank you. How long have you been in your current post?

CR4 12 months.

I Can you tell me what you know about erectile dysfunction?

CR4 Er, impotence, er, it can affect you psychologically, it can be as a result of cardiovascular disease, diabetes, er, its lack of blood flow to the penis.

I Yes, okay, anything else?

CR4 No.

I That's fine.

CR4 Er, sorry, side effects from medication.

I Lovely. What do you know about erectile dysfunction in cardiovascular disease?

CR4 Er, I know that it's an early warning of cardiovascular disease, I know that it can be, er, as early as a couple of years, they use it as a marker, I do know that from, possibly, we have had a drug rep round recently, so, and she was speaking on that, er, but then, and until then probably I weren't as informed that it was as early as 2 years as a marker towards it.

I Okay, thank you. What do you think is your role in terms of erectile dysfunction in cardiovascular patients?

CR4 Er, my role probably initially cardiovascular in secondary prevention would be, erm, definitely informing patients who'd not had any cardiovascular event prior to me seeing them would be to advise the side effects of medication, which is where I tend to start on first visit really. Er, and then leave it from there and follow it up later on if somebody mentions they have been on these beta blockers, ace, whatever, prior to that and they then alert me that it is already a problem, I would investigate further to see if they had been seen or been referred to anybody, if they haven't, we discuss it and discuss the possible hospital referral to ED clinic.

I Okay, thank you. Right, lovely. So that touches on this really. Have you ever asked a patient about erectile dysfunction?

CR4 Yes, I routinely ask patients, erm, well I say routinely, no, its probably just go back to what I have said, I mention about side effects, erm, and then I would follow that up later on in that 3 month rehab period, "Are you having any problems?" So it possibly wouldn't be the first thing I say if they're all new to these medications, so prior to that I probably just associate it with medication when they may have already had a problem.

I Right, okay. Has a patient ever raised the issued of erectile dysfunction with you?

CR4 Yes.

I Can you just expand on that a little bit?

CR4 Er, yes, er, as previously said, erm, a couple of patients have said that they were already on, or had a problem with erectile dysfunction, and I explored it further too, if they were on you know, had they seen anybody within, or been referred to.

I And they were the ones you referred on?

CR4 Erm, one had seen, one had already seen, been in the system but then had started on nitrates and was prescribed Viagra that time so I re-referred back into the system for further advice, and the other patient had not been seen so I referred him to the system.

I OK, thank you. How do you feel about talking to cardiovascular patients about sexual activity and erectile dysfunction?

- CR4 I feel that it's part of my role, the only time I feel uncomfortable and probably do not is if I've got a young female member helping out with interpretation and I don't think it appropriate to discuss it through that family member to him.
- I Right, so family member interpreting, and then.....
- CR4 Yes, not any other interpreter, erm, I have not used our interpreter to discuss sexual activity, I don't think I have actually had that experience, but I would use my interpreter, that wouldn't.....
- I Okay, who do you think is the best person to discuss erectile dysfunction with cardiovascular patients?
- CR4 Are you looking at patients that we see, or just them going in with hypertension or going in with?
- I In general, I mean if someone has got a problem with erectile dysfunction who do you think is the best?
- CR4 Starting, erm, well myself if it is someone I am seeing, I think you build up that rapport in that relationship if you have got somebody who has been picked up in primary care, GP's with hypertension or diabetes then I would think that practice nurses probably be monitoring those.
- I So is it almost whoever is dealing with the patient would you say?
- CR4 Well, yes, it depends where it is, if you have got a hypertensive patient who started on a Ramipril or whatever, or a statin which can cause it, then they should be alerting the patient as to the side effects.
- I Thank you.

CR4 However, that may not be the case so when they come to us they may not be aware of, they may not have been, so then, you didn't ask that did you?

I No, but that's fine that's a valid point, yes, thank you. Erm, what do you think the barriers are to assessing erectile dysfunction from the patients perspective?

CR4 The barriers from the patients perspective would be I think, embarrassment, er, the old male ego, testosterone scenario, failure within their role in a relationship really.

I Anything else?

CR4 Who they are speaking to you know, and the relationship with health practitioner.

I Okay, thank you.

CR4 The setting maybe they may be more comfortable actually in their own home and their own environment than in medical GP practices.

I Yes, OK. So what do you think the barriers are to assessing erectile dysfunction from the health care professionals perspective?

CR4 I think possibly lack of, lack of knowledge, again, embarrassment from the health professional, erm, discussing somebody's sexual activity which is a very personal, you know, its personal for that person, erm.....

- I Yes, okay, thank you. What do you think would make it easier to address sexual activity and erectile dysfunction in cardiovascular patients?
- CR4 Pardon?
- I What do you think would make it easier to address sexual activity in erectile dysfunction?
(long pause)
- I It almost doesn't seem to be, you know, you don't seem to have said you find it difficult really. You know, you seem to use the medications side effects as a routine, it might you don't find it difficult to broach this subject.
- CR4 No, no, possibly, thinking back, possibly my own barriers, sometimes are age, but no I don't really because you know a young couple, and old couples you know, I don't always tend to like, say there age, erm, the most difficult, but saying that no, because I would use an interpreter if I felt you know, if I went to a patient because we have several different family members sometimes interpreting, if I am not feeling information then I will also you the interpreting services.
- I Okay, and the last question, can you tell me what you know about the treatment for cardiovascular patients with erectile dysfunction?
- CR4 I don't really, er, well apart from that Viagra is contra indicated, then you would be looking, referring them into the department, I have never actually been up there but there, are things like the mechanical aids,

then, erm, surgery, sex therapists because obviously they need to explore if it's psychological.

I Okay, thank you very much.

Appendix 29.

I Okay, so for the tape, could just say whether you are male or female?

CR5 I'm female.

I Thank you, and which age group do you fall into, 21 to 29, 30 to 39, 40 to 49 or 50 to 59?

CR5 30 to 39.

I Thank you. Can you tell me how long you have been a qualified nurse?

CR5 Thirteen years.

I Thank you, and how long have you been in your current post?

CR5 Er, about 2½ years 3 years.

I Thank you. Can you tell me what you know about erectile dysfunction?

CR5 Well I know it's a condition which can be involved with cardiac patients because essentially it is a furring up of the arteries that can happen in that area as well as around the heart, or any other area which then stops the blood flow from getting to the penis, and then can result in, loss of sexual function for that individual and breakdown of relationships.

I Okay, thank you. You touched on this a little bit, but the next questions is what do you know about erectile dysfunction in cardiovascular disease?

CR5 Erm, just that it is really the, essentially the same disease process and that erm, often it can be like a marker of cardiac disease if it's with young gentlemen, if they have erectile dysfunction then often it can be a marker that they will develop coronary disease later, or its already started.

I Great, thank you. What do you think your role is terms of erectile dysfunction in cardiovascular patients?

CR5 Erm, well it is something that, erm, is obviously like I have already said, a strong link, so we need to be very aware of it and, essentially make the patients aware that it's a normal, or not an unusual factor involved with that disease process, erm, like I have already said, it's a massive issue for a lot of people because it can involve relationship breakdown at one end, but, erm, also just the person themselves not feeling, erm, like a real man if you want to put it that way, erm, so loss of role, identity, and my role really is to, first of all reassure the person like I say, that it can be normal, and let them know that it's not the end of the line, there are a lot of things that can be done to help that person, it might be a side effect of the medication they're taking, it may not be all, erm, disease process, and so just try and make it comfortable for them so they feel they are able to discuss it, potentially with me and then onwards with more expert people.

I Okay, thank you. Have you ever asked a patient about erectile dysfunction?

CR5 Yes.

I Do you ask routinely?

CR5 I try to ask, well I try to, erm, but there are a few barriers to being able to ask, erm, but if I am able to, then I would generally tie it in when I am talking about the medication that people are taking, I find that's the most comfortable route, erm, essentially, if it's a younger man then I would try to, erm, arrange an, erm, interview or, I'm saying interview because I am having one now, an appointment with them, where I was able to discuss that, sometimes we have a male member of staff and I utilise him, if I feel the patient would be more comfortable talking to a man, but it is always, erm, it's always in my mind that, that's an important part of the rehab process to discuss the potential for erectile dysfunction.

I Okay, thank you. Has a patient ever raised the issue of erectile dysfunction with you?

CR5 Yes, they have. In fact one man, erm, it was the first question he asked me when I, erm, rang him before talking about anything else, he came straight out and asked me if it was okay for him to have sex with his wife, erm, so I knew from the off that sexual health was a, very important for him and, erm, it was nice actually to have that experience, 'cos it just meant that I knew that, where I stood from the start really, and that there was no problems or insecurities on his part.

I Okay.

CR5 But a lot of people do, a lot of people, erm, might say they have problems in, erm, their relationship or, erm, they might think that they have a side effect from the medicine, but they don't often come out and say the words but, they often kind of give you clues to that's what they are talking about.

I Right, thank you. How do you feel about talking to cardiovascular patients about sexual activity and erectile dysfunction?

CR5 Personally I feel comfortable with it, I mean I treat it like any other form of exercise, erm, I don't find it embarrassing, but I am aware of when I use language support, and things like that, that they might find it embarrassing, erm, so I try to be as straight forward as I can, and just use words that relate to sex in a nonchalant fashion so that hopefully the interpreter will copy that and treat it the same, I think that is important that you don't skirt around a subject and make everybody feel like it is something to be uncomfortable about. Essentially I am a nurse, and I will cover that subject just like I would any other.

I Thank you. Who do you think is the best person to discuss erectile dysfunction in cardiovascular patients?

CR5 Erm, well anybody I suppose that the patient feels comfortable talking to, like I say I'll always broach the subject, sometimes I'll ask the patient if they would like to discuss sex, and if they might say no, then I will give people the bare minimum advice with regards to activities and

sex, but, erm, I kind of think it's everybody's job that's involved with looking after the patient, and from the healthcare assistant right up to the consultant or GP or anybody in-between.

I Okay, thank you. What do you think the barriers are to assessing erectile dysfunction from the patients perspective?

CR5 Well, first one obviously embarrassment, erm, and that can be because I am a female, I mean, I look quite young, so I often think that they think they are talking to a child about sex which is a taboo, in our population there's, erm, all sorts of issues with regards to Asian men talking to women, erm, about sex. They don't seem to mind talking to a white British woman about sex but if they are talking to an Asian lady through an interpreter, you know if I have got a female interpreter present, then who is a Muslim, then there maybe some anxieties about discussing it in front of them, erm, obviously I have already said, there is the language issue if I'm saying to the patient about sex and the interpreter isn't as confident as me to discuss it, then I often find that I hear words like 'marital relations' coming out of their mouths rather than the word 'sex' which can often be confusing for the patient, erm, but anyway, you said from the patients perspective, so embarrassment, they might not want to talk about it in front of whoever's present in the room from their family, erm, they maybe using avoidance with their partners so they might not want to even let their partner know that this is something that's happening, erm, through loss of identity and loss of role, manliness, and obviously they might be, concerned that they, they

might not understand about erectile dysfunction and they might think that there is something seriously wrong.

I Okay, thank you. What do you think the barriers are to assessing erectile dysfunction from the health care professionals perspective?

CR5 Erm, I think the main one again is embarrassment on the healthcare, erm, perspective. Erm, you might feel you're, erm, opening a can of worms that you might not know how to deal with, so you're asking the question because you know it needs to be asked, but then don't know what to do with the response when it comes, so you may well avoid asking it in the first place. Erm, like I have already said, using the interpreter, erm, is difficult, because they might not be comfortable, erm, finding the right words often is difficult and, I guess that's through embarrassment again, just maybe not having the confidence to, to be straight forward with the patient and say words you know 'penis' and 'erection', can be a bit daunting for some people. Erm, the other, I have just thought of has lost my mind, I mean there could be time restraints, you might find there are other issues which you deem more important to discuss in that meeting, erm, oh, and family members being present, if you're using a family member as an interpreter or even if the family are there for support and wanting to get all the information, they think they are doing the right thing by being present at the interview, but you don't want to be talking about erectile dysfunction in front of the mans child or other kinds of relatives, which gets me back to arranging a more private interview.

I Okay, thank you. What do you think would make it easier to address sexual activity and erectile dysfunction in cardiovascular patients?

CR5 Well, we don't get any training essentially on erectile dysfunction, in fact we have just had some, erm, denied us, and when we applied for some, erm, so I think that would be a big, erm, bonus because it does help you understand the importance and the disease process behind it, rather than just thinking 'well you know it's sexual health that's nothing to do with cardiac health', erm, so training a big one, erm, I think awareness in side effects of medication, you know, I mean I'm aware of how medications work, but not all cardiac nurses do discuss medications, and maybe by learning sneaky ways, if you like, of bringing that subject in, then people would feel more confident rather than, suddenly sitting down and saying 'right I want to talk about sex and erectile dysfunction' which is a bit, in your face and confrontational you know, if you can sneak it in when you're talking about beta blockers it is often much better for the patient.

I Okay, thank you and the last question, what do you know about the treatment for cardiovascular patients with erectile dysfunction?

CR5 Well, we, erm, we would, used to always ask patients, erm, if they had erectile dysfunction, we used to ask them to go and see their GP, and found that that's where the, erm, pathway ended, GP's in our experience, can often just say you have got heart disease and that's it, and erm, we found that that was disappointing really, so, we made some enquiries, erm, and initially we were asking the GP's to refer to,

erm, a consultant up at the BRI, erm, who had a specialist interest in erectile dysfunction, erm, but more recently we have now found that you can refer to a clinic at Westwood Park, erm, for patients with erectile dysfunction and coronary heart disease. Erm, personally, I say to patients that there are a wide range of, erm, methods that they can get to improve the problems but, erm, I tend not to, I tend not to go into detail about those because I think if you start talking about injecting pellets and needles and things people are often put off, erm, so I say about, there is sometimes some tablets you can take and there are often other methods that they can use if the tablets aren't suitable and patients are often implicated or, erm, you know happy to hear that there is something else that they can use, or somebody else they can talk to, and I encourage them to go to the appointment and feel comfortable talking, and, erm, to this person because that is their job, and, erm, so it tends to work okay now.

I Okay, thank you.

Appendix 30.

I Okay, for the tape, could you tell me whether you're male or female?

CR6 Female.

I Thank you, and which age group do you fall into, 21 to 29, 30 to 39, 40 to 49 or 50 to 59?

CR6 50 to 59.

I Thank you. How long have you been a qualified nurse?

CR6 33 years.

I Thank you, and how long have you been in your current post?

CR6 7 years.

I Can you tell me what you know about erectile dysfunction?

CR6 Erm, not much really, erm, I tend to associate it with diabetics or people, erm, with CHD, erm, I don't think it is a subject that is discussed, there doesn't seem to be study days around it, and I don't feel as if I have got adequate knowledge.

I Thank you. Okay thank you. Can you tell me what you know about erectile dysfunction in cardiovascular disease?

CR6 Erm, if erm, perhaps, erm, a young man is developing ED, that could be a sign that he has got coronary heart disease, so he needs to go

and see the doctor to make investigations, and also people with diabetes as well.

I Okay, thank you. What do you think your role is in terms of erectile dysfunction in cardiovascular patients?

CR6 When we visit patients we go through their medications, and obviously beta blockers, we can say that this can cause a problem, and also say, we give them an information sheet on sexual activity, also about beta blockers and the side effects. We mention that it could be a problem, if there are any problems then I'll be visiting next week, so if you have any questions do ask me. Erm, and then you can always indicate, they sort of indicate if there is a problem by the 'look'. I sort of take the lead, some people are embarrassed so you leave it and come back next week and say 'did you get chance to read those, you know those leaflets that I left you?' erm, and things are fine, I have not had one person say they have developed a problem, but maybe, because we do 2 visits and then after that's telephone calls then, so if they are not coming to the rehab class, I don't think it automatically comes into the conversation, because you are ringing up every 2 weeks to see how they are, you're asking about angina, breathlessness and you don't, it doesn't come up in conversation well 'are you having erection problems?' so things might be developing, along the line, a few weeks on when we don't get the opportunity. So whether, it could be raised then after 3 months when they see the practice nurse, when she sees them in CHD clinic?

I Okay, erm, have you ever asked a patient about erectile dysfunction?

CR6 Yes, yes.

I You have touched on that when you go through the routes of the medicines.

CR6 When we go through the routes of the medicines that's the opening line, and then just say 'have you experienced any problems, do you think there could be a problem?'

I Has a patient ever raised the issue of erectile dysfunction with you?

CR6 No.

I Okay. How do you feel about talking to cardiovascular patients about sexual activity and erectile dysfunction?

CR6 I don't feel as if I have got sufficient knowledge or expert in it, erm, we are going to organise a study day for erectile dysfunction and I think, that will give me more knowledge and more confidence, but we just tend to say go and see your GP, which is inadequate really.

I Erm, who do you think is the best person to discuss erectile dysfunction with cardiovascular patients?

CR6 Somebody who as got knowledge, whether it's the nurse, or a specialist nurse, one of the diabetic nurses has got a special interest in ED, I don't know whether we could refer into her services, because there again, you automatically refer them back to the GP, and they might only have a basic knowledge, and they might not be the right

person. I think just refer them to correct place, the one who has got the most knowledge, could be another nurse.

I Okay, thank you. What do you think the barriers are to assessing erectile dysfunction from the patients perspective?

CR6 Embarrassment, erm, and I think they think they're the only one, so they don't mention it. Embarrassment.

I Erm, what do you think the barriers to assessing erectile dysfunction from the health care professionals perspective?

CR6 Embarrassment again, other people being in the room, erm, especially sometimes with the, Asian chaps, their wife's there, or there could be someone else there, or teenage children that are interpreting, and you think 'is this appropriate to ask through a son or a daughter', to ask your father if he is having problems with erection, it is not appropriate, so that is an awkward time. Sorry, what was the question?

I Barriers from, to assessing from a healthcare professional.

CR6 I think the nurses embarrassment, lack of knowledge, and having the leading questions you know if you had a set of questions to lead you in, to a patient, and the right setting, as I say, if the patients on there own, they might be a bit more open, but if their wife's there, or a relative, or teenagers.

- I Okay, thank you. Erm, what do you think would make it easier to address sexual activity on erectile dysfunction in cardiovascular patients?
- CR6 You could give them, erm, what's its called, inventory, sexual activity inventory, its erm, you could give it to patients, it's like a questionnaire.
- I So it's like a questionnaire?
- CR6 So it's a mini questionnaire, and you could give that to the patients and say, 'I don't know if there is a problem, but if you want to look at these questions then we could discuss it next week', and that would pick up if there is any problems, er, and then that could be a lead to you then to talk, so if you get it back next week and they have ticked nothing, well they either don't want to discuss it, or its not a problem, or it gives them the opportunity just to tick the boxes if there is a problem in this area, er, but there again I have never used that mini questionnaire. Do you know which one I mean?
- I I have read it in the literature, but again I have not used it.
- CR6 I have got a copy on my file but I have never given it to people.
- I Yes, it's just trying to find that route in I guess, like you say isn't it, finding an easy way to discuss it.
- CR6 Try not to embarrass them.
- I And the last question, what do you know about the treatment for cardiovascular patients with erectile dysfunction?
- CR6 First of all, to decide whether its physical or psychological, if they can get a morning erection well that could be psychological, so I thinks that

the first avenue that you go down, erm, perhaps changing the beta blocker, if that's possibly could be the cause, or if they think its physical, erm, refer them to the GU, although I think they are a bit reluctant to try Viagra when they are just newly diagnosed with MI, other, other than Viagra there is mechanical devices they can use, or Atropine injections as those, but I think these are really specialised down the line, and I don't if people, use them, or whether they are popular, you just seem to hear of Viagra.

I Okay, thank you.