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Enhancing the role of nurses in substance abuse intervention: A study of nurses and nursing lecturers in the Western Cape

By

Denise Sheard

A dissertation submitted in fulfillment of the requirement of the degree of Master of Science (Nursing) in the Department of Nursing, Faculty of Health Sciences, University of Cape Town.

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Instrument: *Two questionnaires were developed and self-administered - one to students and the other to nursing lecturers. The nurses' questionnaire elicited demographic information, knowledge and attitudes and the lecturers' questionnaire elicited both demographic and curriculum information. The focus group was conducted in order to verify data obtained from these two questionnaires.*

Results: *Findings in the nurses' questionnaire indicated that 307 (92.7%) nurses had received information on substance abuse. Discrepancies as to when substance abuse information was first introduced existed between nurses and lecturers (58% of nurses stated first year as opposed to 90% of lecturers). It was established in the focus group that substance abuse was not routinely taught as an entire entity on its own or dealt with in any specific way. Substance abuse tended to be allocated to self-study, which could account for these differences as well as differences noted in time spent on substance abuse education. The number of hours spent on substance abuse education reported by nurses, ranged from less than 5 hours to more than 20 hours, 5 (50%) lecturers stated that this was enough. In the knowledge section only180 (54%) nurses answered more than 50% of the questions correctly. Knowledge on pharmacological properties of substances was limited. Very little knowledge was evident in particular on Mandrax and dagga with only 142(43%) and 130 (40%) nurses, respectively, answering questions on these two substances correctly. 231(70%) nurses scored more than 50% in the attitude section, yet only 136 (41%) of nurses reported feeling comfortable when dealing with substance abuse problems. Findings in the lecturers' questionnaire provided some answer as to why nurses have limited knowledge. It appears that four main areas of substance abuse are taught: general information, management, psycho social effects and health promotion,*

TO MY BOYS

ROGER, NICK AND JUSS

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DEFINITIONS.

1. **Substance** refers to alcohol; solvents; tobacco; prescribed, over-the-counter and illicit drugs.

2. Substance misuse/ abuse

The term substance abuse includes the use and misuse of legal substances such as nicotine, over-the-counter drugs, prescribed drugs, alcohol, indigenous plants, solvents, inhalants, as well as the use of illicit drugs. It refers to the problematic use, abuse and potential risk from use, of such substances. Resultant problems may be social, physical or psychological

3. Dependence

A person is dependant on a substance when it becomes very difficult or even impossible for him/her to refrain from taking the substance, without help, after having taken it regularly for a period of time. The dependence may be physical or psychological or both.

4. Early Intervention.

A therapeutic strategy that combines early detection of hazardous or harmful substance use and the treatment of those involved. Treatment is offered or provided prior to patients presenting of their own volition and in many cases before they become aware that their substance use may cause problems. It is directed particularly at individuals who have not developed a physical dependency or major psychosocial complications.

5. Dagga

Wild hemp (cannabis) smoked as a narcotic.

6. White Pipe

Dagga mixed with Mandrax.

7. Prevention.

Prevention is a proactive process that empowers individuals and systems to meet the challenges of life's events and transitions by creating and reinforcing conditions that promote healthy behaviour and lifestyle. It generally requires three levels of action:

* Primary prevention, focusing on altering the individual response and the environment in such a way as to reduce the initial risk of developing substance abuse.

* Secondary prevention, focusing on early identification of individuals who are at risk of developing substance abuse and intervening in such a way as to arrest progress.

* Tertiary prevention, focusing on treatment of the individual who has developed a drug dependency.

(Department of Welfare 1999: 47-49)

ABBREVIATIONS

ANC	African National Congress
AODA	Alcohol and Other Drug Abuse
ARA	Association for Responsible Alcohol use
ASAUK	African Studies Association of the United Kingdom
BAC	Blood Alcohol Content
CTDCC	Cape Town Drug Counseling Centre
ENB	English National Board for Nurses, Midwives and Health Visitors
FARR	Foundation For Alcohol Research
FAS	Foetal Alcohol Syndrome
GEAR	Growth Employment And Redistribution Strategy
IMR	Infant Mortality Rate
MMR	Maternal Mortality Rate
MRC	Medical Research Council
NCHE	National Commission for Higher Education
NDMP	National Drug Master Plan
NHS	National Health System
NIAAA	National Institute on Alcohol Abuse and Alcoholism
NTRP	National Trauma Research Programme
NQF	National Qualifications Framework
OTCD	Over-the-counter drugs
RDP	Reconstruction and Development Programme
SACENDU	South African Community Epidemiology Network on Drug Use
SANC	South African Nursing Council

SANCA	South African National Council of Alcohol and Drug Addictions
SANAB	South African Narcotics Bureau
SAQA	South African Qualifications Authority
UNDCP	United Nations Drug Control Programme
U5MR	Under-5 Mortality Rate
WHO	World Health Organization

CHAPTER 1

INTRODUCTION

' There exists an emerging awareness within the nursing profession of the often unique and challenging problems associated with providing appropriate and relevant nursing care to those persons who suffer from alcoholism, drug abuse and drug addiction.' (Burkhalter 1975:30)

South Africa has a population of approximately 42 million people distributed across nine provinces. It is estimated that approximately 46 percent of the population of South Africa are aged 20 years and younger (Central Statistics 1997). Substance abuse has been identified as a priority to ensure women's health, employee productivity, community safety and healthy economic and social development, especially for school going children (Medical Research Council 1998:1).

The health care system in South Africa is being restructured and transformed into a National Health System (NHS). The new South African Health System has adopted the primary health care approach, as it is the most cost effective means of improving the health of the population. These changes will require health professionals to redefine their roles and their approach to intervention. The majority of the population does not have access to basic services e.g. water, sewage, electricity or health care. It is estimated that the infant mortality rate (IMR), under-five mortality rate (U5MR) and maternal mortality rate (MMR) are far higher than expected for a country with the level of income in South Africa (Department of Health 1997:11). Substance abuse, which includes the abuse of alcohol and tobacco, are important contributing factors to the high mortality and morbidity rates (Wegner 1998:2). Research has shown that children born to mothers that have been abusing alcohol, were born with Foetal Alcohol Syndrome (FAS), this will be discussed in the literature review in Chapter 2.

The present government has developed a framework for socio-economic improvement, the Reconstruction And Development Programme (RDP), and latterly through the Government Growth Employment and Redistribution strategy (GEAR). One of the broad principles of this programme is to equip individuals with the necessary knowledge to care for their own health. Health workers should not only be

responsible for patients attending health clinics, but also have a sense of responsibility towards the majority of the population.

There are 175 599 nurses of all categories in South Africa; of these 11 287 are student nurses (Green 1999: personal communication). It appears that there is a need to change the way in which nursing students undergo preparation in order to deal with individuals who abuse substances. This lack of education is reflected in research which shows that nurses' attitudes towards substance abusing patients are significantly more negative than those they have toward non-addicted patients (Sullivan and Hale 1986:457).

The government aims to achieve this by undertaking a national audit of training institutions and assessing the relevance of existing curricula to the changing trends in health. The overall principle should be that education and training programmes comprise relevant, reality-based, curricula aimed at providing comprehensive, integrated, community based health care delivery in order to meet the health needs of the country. Education and training programmes must be developed for nursing personnel, in order to ensure a competent, appropriate response to the health needs of the people they serve. According to the Department of Health White Paper 17910 (1997:11-215), the following categories of nurses are regarded as a training priority: primary health care nurses, advanced midwives, community psychiatric nurses and paediatric nurses.

A great deal of concern has been expressed about the increase in substance use in South Africa and about the negative consequences that substance abuse has on society and the country as a whole. Concern over these issues has stimulated the development of the South African Drug Master Plan, which is aimed at the prevention and effective treatment of substance abuse. The health system aims to reduce substance abuse, with particular emphasis on alcohol, tobacco, glue, cocaine, Mandrax, heroin and marijuana (Department of Health 1997:11-215). Nurses are among those health care workers targeted as being crucial to the objectives of the plan. There appears to be a gradual recognition that nurses could be playing a greater role in alleviating the substance abuse problem. This study is linked to the objectives of the National Drug Master Plan whose major aim is to combat substance abuse.

The researcher's experience as a nursing lecturer has also contributed to the conceptualization of this study. Fifteen years of teaching in orthopaedic and trauma nursing caused the researcher to note that substance abuse was seldom identified as a problem because it was not regarded as relevant to the primary diagnosis. Substance abuse was frequently recorded on admission as a secondary diagnosis or as being a contributing factor but, it was not identified as a specific nursing problem and, as a result, the substance abuse problem was not dealt with. This led to the researcher's awareness that substance abuse training was not being integrated into nurse training or interdepartmentally in the clinical setting.

This study was undertaken in order to obtain information from nursing departments in universities and colleges of nursing about current curricula in order to establish what the present attitudes and knowledge of student nurses were, with regard to substance abuse. The study also aimed to establish if student nurses found information received useful when dealing with substance abusing patients. The nurse and nurse educator were identified as the foci of this study. In order to understand the constraints placed on educators the laws and bodies governing nursing need to be understood and will be briefly outlined in chapter 2. In the literature review, the history and background to nurse education in South Africa, as well as the training guidelines and laws governing nursing practice, will be reviewed. The researcher will examine how nurses are educated and if this education prepares them for their role in dealing with substance abuse. In this document the terms 'use', 'misuse' and 'abuse' have been used interchangeably as they often overlap. Substance use can be seen as a continuum from experimental or recreational use through to misuse/abuse/dependence.

Nursing theories and models are discussed in chapter 2, in order to provide a greater insight into the rationale behind nurse training. Without the correct knowledge and attitudes toward substance abuse, the nurse cannot be expected to provide the necessary care. Recent trends, which highlight the flaws in existing nursing education, will also be discussed in chapter 2. Throughout this research process Rogers model of nursing has been used as a guideline when making decisions on research questions, discussing results and making recommendations. Rogers defined nursing as a learned profession offering individualized care based on the uniqueness

of the individual and his/her environment. Rogers model is discussed in detail in chapter 2.

Research methodology has been discussed in chapter 3 with emphasis on why the survey method was chosen. The reliability and validity of the chosen method is also discussed. Chapter 4 deals with the survey data from both the lecturer and student nurse questionnaires.

It was decided after analyzing the survey results that a focus group would be beneficial in clarifying certain points. As this was not part of the original proposal it was added as a separate section in chapter 5. Chapter 6 discusses the combined results and what impact they may have on nursing education. Recommendations are made in chapter 7, using the available data. The conclusions of the research are stated in chapter 8.

CHAPTER 2

LITERATURE REVIEW

'Since no area of health care is untouched by substance abuse, there is a strong argument for integrating substance abuse throughout the curriculum.'
(Arthur 1998:486)

2.0. Introduction

In this chapter the nature and magnitude of the substance abuse problem will be discussed both nationally and internationally. Local nursing education and nursing services as well as the history of nurse education will be highlighted. National and local initiatives and how nurse educators are dealing with the problem will also be noted. The past decade has seen a concentration of interest in, and legislation on, the use and effects of drugs. The global perspective is important as it serves to highlight that substance abuse is a universal phenomenon. It is this focus of interest as well as the changing role of the nurse in the health care system that led to this study. Since this study is in response to a need within South Africa, national, endeavours for example, the National Drug Master Plan, have been elucidated.

The researcher will discuss both national and international literature relating to substance abuse training, over the past 30 years. A general literature review was done in order to ascertain keywords and which journals were most likely to have information on substance abuse. The literature presented in this study was collated on the basis of a systematic review of MED LINE, BORIS and ALEPH using the following keywords: 'substance: misuse, use, abuse, tobacco, smoking, drugs: dangerous, illicit, over-the-counter, alcohol, nurse: training, education and curriculum.'

Assistance with present trends in the Western Cape was requested from local substance abuse centres and research institutions currently dealing with substance abuse. Past research in this area was also used to identify a specific area of research. Unpublished works from Medical Research Council and conference reports were reviewed as well as information obtained from the South African Nursing Council, United Kingdom Central Council for Nurses, Midwives and Health Visitors, various

nursing colleges within South Africa and the United Kingdom (i.e. curricula), The South African Government Printers and Parliamentary Clerk of the Papers (i.e. government gazettes and white papers). Only articles written in English and Afrikaans from 1968 -1999 were reviewed. Lists of references from all research articles were followed up.

2.1. Substance Use / Abuse

' Improving the quality of housing of the urban poor, decreasing air pollution and ensuring access to food and clean water are imperative but if the quality of the urban environment is marred by crime and violence often fuelled by abuse of alcohol and other drugs, then development objectives will not be met.' (Parry and Morojele 1998:1)

In this section the researcher reviews some of the biopsychosocial consequences and trends that substance abuse has on the individual and society. At the African Studies Association of the United Kingdom (ASAUK) biennial conference in 1998, Simon noted that in common with other African countries, South Africa suffers from widespread poverty, social and regional inequalities and dislocation caused by migrant labour and politically related conflict (Simon 1998:1). The scale of illicit drug trafficking, consumption of drugs and related problems has increased considerably since 1990, as the country has emerged from political isolation. Owing to a general trend of unemployment and lifting of influx control regulations, urbanization has increased, with large informal settlements developing in predominantly low-income areas. Poverty is widespread, as is violence and family breakdown. High levels of alcohol and drug abuse exacerbate these problems (SACENDU 1998a:35).

According to Dr. Parry of the South African Medical Research Council (Medical Research Council 1998:1), 'substances that are used and abused in South Africa can be divided into three categories: those that are extensively used, those that are moderately used and those that are less frequently used'. In the first category, alcohol remains the most commonly abused drug in South Africa, with a substantial increase in binge drinking among adolescents. Followed by the use of "dagga" and the "dagga"/mandrax combination. There is also considerable abuse of over-the-counter

and prescription drugs, as well as solvents. In the moderately used category, one finds drugs such as "crack cocaine", heroin, "speed", and "ecstasy". In the less frequently used category of drugs are included substances such as opium, Rohypnol and "hashish".' (SACENDU 1998a:2).

The Cape Town Drug Counseling Centre (CTDCC) agrees that substance abuse is on the increase and it is of concern that the statistics are showing a shift towards a younger group. In Cape Town the number of female abusers is also on the increase. According to the Cape Town Drug Counseling Centre, (CTDCC 1997:2) there are many women with substance abuse problems, but relatively few seek help due to the stigma attached. These two groups (adolescents and women) will at some stage come into contact with nursing staff in schools and clinics.

In the United States of America, Hagemaster, Handley, Plumlee, Sullivan and Stanley (1993:421) noted that prescription drug abuse and the abuse of alcohol with other substances are the most common drug related reasons for emergency hospital admissions. The United Kingdom advisory council on misuse of drugs noted that the individual's social situation could have a significant relationship on his/her health and social adjustment. They suggested that deprivation might be related to substance misuse in subtle and multiple ways, due to one of the essential factors of deprivation being unemployment and low income, leading to a feeling of powerlessness and loss of control. They further noted that deprivation could be seen as a psychological burden that often leads to problematic substance abuse in an attempt to feel better about oneself. The issue of deprivation is of special significance to South Africa due to the previous apartheid system that led to disempowerment of the majority of people (Medical Research Council 1998:83). In the section that follows the researcher reviews individual statistics of some of the more commonly abused substances.

2.1.1. Tobacco

At the 9th World Health Conference in 1994, it was reported that tobacco had caused 3 million deaths in 1993 and it was projected that tobacco could cause 10 million deaths per annum by 2025 (cited by Reddy, Meyer-Weitz, Yach 1996:1390). Further data supplied by Reddy et al (1996:1390) following a national survey of South Africans over the age of 18 years, reported that 34% of adult South Africans smoke,

with 52% of men smoking and 17 % of women. They further noted that the Western Cape has one of the highest smoking rates in South Africa, with 48% of the population smoking. Smoking patterns have been high for several decades and are reflected in the high rate of tobacco-related deaths in the country, one in five deaths being attributed to smoking. In a study conducted in the trauma unit at Groote Schuur hospital, Cape Town, over a period of two weeks, 70% of patients acknowledged smoking an average of 11 cigarettes a day (Peden and Sidzumo 1997:1). This high exposure of individuals and families to tobacco is reflected in the Western Cape as it has one of the highest low-birth-weight rates in South Africa, as well as a high rate of acute respiratory infection and asthma in children (Reddy et al 1996:1393). Ehrlich (1992:443) noted that there is strong evidence that parental, and in particular maternal, smoking increases the risk of acute lower respiratory tract infection in infants, and adversely affects lung function growth in children.

Cigarette smoking in adolescents is thought to represent a crucial entry point in the progression to illicit substances. The earlier an adolescent begins to experiment with cigarettes and alcohol, the greater their subsequent involvement in illicit substances (Reddy, Meyer-Weitz, Abedian, Steyn and Swart 1998:22). In a 1983 survey of white high school children in Cape Town, Prout and Benatar (1983:483) reported that 21% of the children surveyed smoked and 28% claimed to be ex-smokers. In a study of 7 340 Cape Peninsula high-school students in 1990 (Flisher, Ziervogel, Chalton, Leger and Robertson 1993c:477), it was found that 10.2% of students in Grade 8 (13 years) were regular smokers i.e. smoked at least one cigarette a day. This number had increased to 32.3% by Grade 11 (17 years). Of interest is the fact that a decrease (27.6%) was seen in these figures by Grade 12 (18 years). A further 41.2% of students were identified as infrequent smokers.

Tomkins (1998:10) noted that tobacco dependence is a major public health problem that needs serious attention if tobacco related mortality and morbidity is to be reduced. Yach, Steyn and Albrecht (1989: 159) found that 90% of smokers who quit do so outside of specific programmes, which led them to believe that community based intervention programmes aimed at changing social norms could have a significant impact.

It must be remembered that smoking is related to an array of diseases that have a vast economic impact on the country. Such is the impact that major public health action to prevent the onset is justified due to the limited resources for health care in developing countries and the prediction that within a few decades tobacco will become one of the most important causes of premature death in these countries (Martin, Steyn and Yach 1992:242). According to McIntyre and Taylor (1989:432) smoking cost South Africa R212.2 - 246.8 million in 1985 as a result of premature death and lost productivity. Hospitalization and other health costs were estimated at R108.5 million in public institutions alone. Health experts have stated that smoking - related illness is one of the most easily preventable conditions, but many people, especially in developing countries, are unaware of the health risks associated with smoking. Townshend and Yach (1988:412) suggested that among other legislation, making health education in schools and health centres mandatory could assist in alleviating the problem. Yach and Joubert (1988:400) using 1984 statistics as a baseline, predicted the number of smoking-related deaths in the coloured and black community in the Western Cape in year 2000 would be between 9 304 and 51 415. Reddy, Meyer-Weitz, Yach (1996:1392) note that in the Western Cape the incidence of smoking has been high for several decades and this is reflected in the highest rate of smoking-related deaths in the country: one in five deaths in the Western Cape is due to tobacco-related causes. Reddy et al (1996:1393) further noted that the high exposure of households in the Western Cape to tobacco smoke is of concern since this province has the highest rate of low-birth-weight rates and a high incidence of acute respiratory disease in children. According to Reddy et al (1996:1393), these illnesses are associated with passive or environmental smoking and a failure to introduce preventative strategies now will mean that tobacco-related deaths, disease and misery will become an increased burden on the health services and the country as a whole. .

2.1.2. Alcohol

The combined abuse of alcohol and illicit drugs is of growing concern. Steenkamp, Jooste and Christopher (1988: 402) noted an association between smoking and high alcohol consumption. Alcohol remains the major primary substance of abuse seen at specialist centres, even though the number of admissions for alcohol abuse in the Western Cape has decreased from 81.4% in 1996 to 64.3% in 1998 (SACENDU 1998a:2). There has, however, been a major increase in the number of patients

reporting alcohol as a secondary substance of abuse, from 7% in 1996 to 20 % in 1998. This could be as a result of the decrease of alcohol as a primary substance of abuse (SACENDU 1998b:3).

According to Parry (Medical Research Council 1998:1) adult per capita consumption of absolute alcohol in South Africa is 9-10 litres per person, per year, placing South Africa among the highest in the world. Parry noted that overall alcohol abuse can be as low as 5% in some areas and as high as 30% in others and is dependant on factors such as age, gender, socio-economic status and occupation. Parry further noted that alcohol is the most common primary substance of abuse in South Africa (Parry and Bennetts 1998:29). In South Africa use of alcohol is a factor in nearly 50% of all accidental deaths and suicides (Wallack and Corbett 1987:224).

The South African National Council of Alcoholism and Drug Dependency (SANCA) estimates that there are more than one million individuals abusing alcohol in South Africa. According to Parry & Bennetts this is at an estimated cost of R10.6 billion in terms of health care and loss of productivity, to South Africa (Parry and Bennetts 1998). The prevalence of alcohol abuse is higher in men than women. White male adolescents show the highest rate of binge drinking (Flisher et al 1993a:470). In a study of 7 340 Cape Peninsular high-school students in 1990, 53.2% of students reported using alcohol, 26.2% had used alcohol recently and 15.45 reported episodes of binge drinking (Flisher et al 1993d:480). These researchers further noted that the findings on binge drinking were of particular concern and indicated a need for preventative action (1993d:470).

A strong association between alcohol and unnatural death was identified in Cape Town in 1997. An MRC study at Groote Schuur Hospital in 1999, found that 16% of patients admitted had a high blood alcohol content (SACENDU 1999b:1). The study also found that approximately 55% of non-natural deaths had a high blood alcohol content (BAC). Peden and Sidzumo (1997:2) noted a link between substance abuse and trauma in a study conducted in the Trauma Unit at Groote Schuur Hospital, Cape Town. They found that, of the patients admitted to the trauma unit over a period of two weeks, 41% had a zero alcohol level with the remaining 51% having consumed alcohol to various degrees. Of patients with violence- related injuries, 70% (52%

injured in traffic accidents and 34% as a result of an 'accident') were found to be alcohol positive. Of a total of four suicides, three were found to be alcohol induced. This study confirmed that alcohol remains the most common substance of abuse among trauma patients. According to Albertyn and McCann, (1993:45) 25% of hospital admissions in South Africa are directly or indirectly attributed to alcohol. A study of home violence trauma among people of all ages in the Cape Town Metropolis revealed that 67.4% of fatal and non-fatal trauma involved high limits of alcohol (Van der Spuy 1996:35). A positive association between pedestrian injury and amount of alcohol consumed was found, with 60% of patients suffering minor injury and 80% requiring intensive care (Peden, Knottenbelt, van der Spuy, Oodit, Scholtz and Stokol 1996:1103). In a study of risk-taking behaviour of Cape Peninsula high-school students (Flisher et al 1993f:486), 8% of students reported being under the influence of alcohol or cannabis when driving.

Anderson (1996:5) notes that evidence points to a link between alcohol consumption and the risk to family, work and independence. Accidents, assaults, criminal behaviour, violence and suicide are also linked to alcohol consumption. Increased frequency of drinking is associated with a higher risk of accidents and violence, both towards oneself and to others. He further states that the use of alcohol is related to a number of factors, including socio-demographic and economic. Alcohol dependence is higher among men than women and declines with age in both sexes. When interviewed by the Cape Times, Dr. Makan, director of the Association for Responsible Alcohol Use (ARA), noted that it made sense to concentrate efforts on educating lower socio-economic groups about the dangers of alcohol abuse as lower economic class is a risk factor for alcohol abuse in South Africa. Makan also notes that the abuse of alcohol is a phenomenon specific to workers throughout South African farming industries, in particular the wine industry, due to the 'dop system', of alcohol for pay. Makan stresses that alcohol abuse is an important feature of disempowered communities worldwide and is often an expression of frustration and community disintegration (Thiel 1999).

London (1999:1407) notes that despite being prohibited by law, the arrangement by which workers are given alcohol as a benefit of employment i.e. the 'dop system', is still prevalent in the Western Cape, resulting in family as well as social and

environmental problems. It appears that the 'dop system' is not only confined to wine farms as wheat and fruit farms also practice this system. London (1999:1407) notes that it is not surprising that alcohol consumption is high given this social context. In a study in 1998, it was found that levels of alcoholism among farm workers were in excess of 60%. London (1999:1410) notes that according to personal communication with Professor D. Viljoen in December 1995, consultations for congenital and hereditary disorders at outreach clinics, suggest that foetal alcohol syndrome is prevalent in the 'dop system' regions of the Western Cape. London further states that all of the above factors confirm the impact of alcohol in the rural farming regions of South Africa, in particular in the Western Cape.

Palmer (1985:779) reported that during the twelve-month period from July 1984 to the June 1985, 14 infants were born at Somerset Hospital, Western Cape, with Foetal Alcohol Syndrome (FAS) characteristics. This represented an overall incidence of one in every 281 newborn infants at the hospital. Findings released by the Foundation for Alcohol Research (FARR) in 1996, confirmed this trend indicating that between 5 and 10% of children born to mothers from socio-economically disadvantaged areas in the Western Cape, were born with FAS. This study also found that FAS contributes significantly to social problems in the province. Of women interviewed at random at Heideveld Mobile Obstetric Unit, only three of the 60 women interviewed were aware that alcohol could cause brain damage. Parry (1997:2) noted that local research has found rates of FAS in excess of 30 per 1000 in high-risk communities in the Western Cape, a rate three times higher than the highest rates reported in high risk areas in the United States of America. In a more recent study (July 97-April 98) by UCT and FARR in Wellington, Western Cape, 989 school-entry children from 12 primary schools were screened for FAS: 48 of these children were diagnosed with FAS (FARR/UCT 2000:1). This is a rate of 48.4 per 100, a significant increase on statistics noted by Croxford and Viljoen (1999:962) who noted that 10.6% of children born to women, who drink heavily, had FAS.

The potentially destructive effects of alcohol use on the family include violence, divorce, economic stress and negative role models for children (Parry and Bennetts 1998). Parry (1997:2) states that according to the Crime Information Management Centre, nationally 42 805 cases of drug-related crime were reported in South Africa in

1997, a 9.1% increase from 1996. Parry further notes that in approximately 25% of murder cases, the crime had been committed during a fight involving alcohol.

Heavy drinkers are known to be at higher risk from cancers of the tongue, mouth, oropharynx, oesophagus, larynx, liver, breast, pancreas and rectum. Neurological deficits are not uncommon in heavy drinkers. Alcohol intake can also have an effect on mental status causing depression, delirium tremens and psychosis. Nutritional disorders are also associated with alcohol consumption. Parry (1997:2) notes that 20 - 30% of hospital admissions are estimated to be directly or indirectly related to alcohol abuse. Parry further notes that according to the Crime Information Management Centre there were 28 806 cases of driving under the influence of alcohol or other drugs, in South Africa in 1997, a 16% increase from 1996. Research by the National Trauma Research Programme in 1990 showed that 67.4% of domestic violence in the Cape Town Metropolis was alcohol related (Strydom, van der Spuy, Abrahams and Peden 1994:3). The long-term use of alcohol has been directly related to alcohol cardiomyopathy and hypertension (Jackson 1994:15).

2.1.3. Cannabis/Dagga

According to Simon (Medical Research Council 1998:35), until 1990 concern over illicit drugs focused mainly on the cultivation and consumption of "dagga" and the abuse of Mandrax. In many townships in South Africa the abuse of cannabis and "white pipes" (cannabis/Mandrax combination) has led to high incidences of absenteeism and truancy. This, along with alcohol abuse, has led to high levels of domestic violence and the breakdown of families. In a study conducted in the trauma unit at Groote Schuur hospital, it was found that 4.4% of patients had smoked a 'white pipe' on the day of injury (Peden and Sidzumo 1997:2).

Cannabis is the most widely used illicit drug, consumed by 2.5% of the world population i.e. 140 million (United Nations Drug Control Programme 1995). It is the third most common primary substance of abuse in South Africa with the average age of the user being 31 years. "Dagga" and "dagga"/Mandrax are the second and third most common primary substances of abuse seen at specialist clinics in South Africa, with "dagga" use increasing from 4.4 - 9 % and the "dagga"/Mandrax combination from 8.6 - 14% between 1996 and 1998 (SACENDU 1998a:16). South Africa ranks

among the world's largest producer of cannabis. Most is consumed locally, the rest being shipped to the United Kingdom and the Netherlands (Department of Welfare 1999:2).

A further indication of the high level of cannabis abuse in South Africa is evident from a local study conducted by the University of Cape Town (UCT) and Medical Research Council (MRC) in 1998, among grades 8 (14 years) and 11 (17 years) students in 38 schools in the Western Cape area. It was found that 32% of males had used cannabis at some stage of their lives by grade 11. In grade 8, the prevalence of drug use was highest among white students, followed by Coloured and African students (Flisher et al 1996a:1091). These statistics are worrying in that they appear to have almost doubled when compared with a similar study by Flisher et al three years earlier, where 7.5% of adolescents reported using cannabis and only 1.6% reported smoking a 'white pipe'. (1993e: 483).

Recently Beautrais, Joyce and Mulder (1999:1155) linked an increased incidence of suicide to cannabis use. They suggested that the increase in substance abuse over the last three decades might have led to an increase in suicides. In a case control study in Canterbury, New Zealand, of 302 individuals, between September 1991 and May 1994, a significantly higher rate of suicide was found in cannabis users/abusers. These results suggested that cannabis users had a ten times higher chance of attempting suicide. It was further suggested that the association between cannabis dependence and suicide might arise from co-morbidity of cannabis abuse with other disorders such as alcohol or other drug abuse.

2.1.4. Other Drugs

Considerable abuse of over-the-counter and prescription medication is evident in South Africa with an increase of cases reported in specialist clinics from 1.8 in 1996 to 2.0 % in 1998. The numbers of people seeking illicit drug use treatment suggests that Ecstasy, LSD and Speed use is more prevalent among the older generation and solvent abuse prevalent among the youth. Over-the-counter drug abuse tends to be more prevalent in men (SACENDU 1998b:6).

Over-the-counter drug abuse is the third most common secondary substance of abuse. According to Parry (1997:1) various factors have been suggested that may contribute to alcohol and other drug (AOD) abuse. Parry further notes that AOD use has a negative impact on many areas of individual and community life, including health, security and economy. Between 6% and 20% of patients seeking help at specialist centres in Cape Town, cite AOD as a primary substance of abuse. In Cape Town an equal proportion of men and women abuse over-the-counter medication. The substance abuse includes both prescription and non-prescription drugs i.e. pethidine, wellconal, codeine, rohypnol, cough mixtures, morphine, Valium and appetite suppressants (SACENDU 1998b). Arthur (1998:477) noted that in order to reduce the effects of alcoholism and other forms of chemical dependency on society, active involvement by all health care workers is needed. There appears to be a great need for training health and welfare professionals including nurses on the topic of addictions. Substance abuse is a serious and growing problem in many areas in South Africa.

Mortality in drug addicts is high, generally around 2% per year. In a study by Rossouw and Lauritzen (1999:210), of 2051 drug addicts admitted for treatment in Norway, it was found that almost half (45.5%) of addicts reported having experienced one or more life threatening overdoses. Experience of overdose was more often reported among those who were homeless, had no friends or those reporting daily use of amphetamines, tranquilisers and alcohol. Daily use of a combination of tranquilisers and alcohol was seen more often among those who attempted suicide. Follow up studies of mortality among drug addicts generally indicates the cause of death as overdose (Rossow and Kielland 1995:115).

In a study by Flisher et al (1993e:483), of 7 340 Cape Peninsula high school pupils it was found that 10.9% had sniffed solvents and 0.5% had used injectable drugs. These researchers did however note that the majority of drug use among pupils tended to be experimental, with only a small percentage of adolescents abusing drugs. They further noted that when drug use became a problem, it was generally due to a complex interaction of socio-cultural and personality factors.

In conclusion, the above literature appears to point to a high incidence of substance abuse in South Africa and, in particular in the Western Cape. Substance abuse affects the physical, social and emotional aspects of wellbeing. A multifunctional response is required to deal with the problem, as a result the present government has compiled a national drug master plan.

2.2. The South African National Drug Master Plan

In the words of Nelson Mandela, ' our country is faced with a growing problem of substance abuse. This has serious implications for the millions of citizens because it contributes to crime, domestic violence, family disintegration and other social problems. This National Drug Master Plan will strengthen our efforts to stamp out drug abuse and its associated problems in a holistic and co-coordinated manner.' (Department of Welfare 1999:1)

Historically, and until very recently, approaches to substance abuse have focused mainly on treatment. Government concerns about the increase in substance abuse led to the formation of the National Drug Advisory Board appointed by the Department of Health, to draw up a National Drug Master Plan, aimed at combating substance abuse in South Africa. (Department of Welfare 1999:7). The United Nations Drug Control Programme (UNDCP) defines a drug master plan as the single document adopted by government outlining all national concerns in drug control. It summarizes national policies, defines priorities, and apportions responsibilities for drug control efforts (Department of Welfare 1999:3).

One of the suggested ways of achieving a South African community as free as possible of substance abuse is through public health clinics, at which the nurse is frequently at the forefront. The national substance abuse strategy has identified specific goals and activities in five areas that are of relevance to nurses, i.e. prevention, treatment, rehabilitation, information and research. Included under primary prevention were awareness skills, training information and education programs targeted at the general public. It is important that primary health care nurses, in particular, recognise the part played by substance abuse in their patients' problems, and are able to deal with these problems in a non-judgemental way (Department of Welfare 1999:30). Nurses will need to become involved with the

South African National Drug Master Plan training objectives and nurse educators will need to adjust nurse education accordingly.

The following objectives of the Drug Master Plan are of relevance to nurses and should be considered when formulating nursing curricula:

- to increase efficiency and effectiveness of treatment
- to make more effective use of referral and case management in order to facilitate early access to treatment
- to discourage people from abusing drugs and to enable those who do so to quit.
- to ensure that families of drug abusers have access to appropriate advice counseling and support services.
- to promote and develop appropriate programs for combating substance abuse through the field of research.
- to introduce, disseminate and implement relevant research results

The Department of Welfare further acknowledges that public awareness of the detrimental effects of substance abuse needs to be supported with proper accessibility to treatment facilities and services for effective harm reduction (1999:27). Consequently the Department of Welfare is currently working on the following projects that will influence nursing education and should be considered when revising nursing curricula.

- Integration of substance abuse within primary health care services, placing emphasis upon community- based health services and research.
- Development of substance abuse manuals for integration into the school curriculum.
- Ongoing youth awareness campaigns.
- A five-year-community-based project, aimed at primary prevention of substance abuse among young people.
- Restructuring of Mental Health Services to specifically include substance abuse.

These objectives highlight the need for nurses to become more involved with substance abuse intervention. This study may be seen to fall within the context of the above objectives. What follows is a discussion of the nurse's role in the care and prevention of substance abuse.

2.3. Nursing Services

The present government has identified Primary Health Care as an important tool in redistributing and providing a more equitable health care service throughout South Africa. Primary prevention should concentrate on the detection of problems, management of those problems that are not acute, and referral of those that cannot be dealt with adequately at the primary level (Parry and Bennetts 1998 :160-161). Parry and Bennetts stated that at present the primary level care area is under utilised as an opportunity for addressing problem drinking patients and instituting early intervention. Urban areas need to be targeted for appropriate education at a primary level. In an attempt to deal with these and other problems, the health care structure in South Africa is being restructured and transformed, the purpose being to provide effective health care for the entire population (Department of Health 1997).

Nurses play a crucial role in the primary level care setting as they are the largest group of health care workers. Parry and Bennetts maintain that if public health personnel, of which nurses are a large group, could be trained to recognise patients with signs of alcohol misuse or dependence and are able to deal with these problems in a non-judgmental manner, better use could be made of primary health care facilities. They further emphasise that the primary health care system does not appear to be functioning properly, in the sense that only a small number of individuals with substance-abuse problems are being detected and managed at that level (Parry and Bennetts 1998:164). According to Rassool and Oyefeso (1993:13) substance abusers often first present symptoms to a primary health care service, but most primary health care workers have a low level of confidence when dealing with patients abusing substances.

These are consistent with the earlier findings of Einstein and Wolfson (1970:312), and Harlow and Goby (1980:59), who found that nurses in the United States of America are ill-equipped to provide substance abuse services. Rassool and Oyefeso further

stated that current training tended to reinforce the perception of health care workers i.e. that people with substance abuse problems should be referred to specialists. They argue that primary health care workers need to be taught skills in order to deal with substance abuse problems that include assessment, counseling, health care information and advice (Rassool and Oyefeso 1993:14). A study carried out by the English National Board for Nursing, Midwifery and Health Visiting (ENB 1997) confirmed that one of the biggest obstacles to comprehensive care for substance abusers is the perception among health care workers that this is a job for specialists alone, yet studies consistently show that most people with drug or alcohol problems do not seek or have access to specialist care and will first be seen by their local nurses.

Sullivan and Hale (1986:456) noted that as registered nurses collectively provide health care 24 hours a day with continual patient contact they should be in the best position to recognise symptoms of substance abuse, both physical and psychological, yet it seems that these symptoms are frequently missed.

Parry and Bennetts further recommended that systematic changes within the health care system are required to address barriers to implementing effective programs. They suggest that at present there is an over-emphasis on curative medicine and that a shift in policy is needed with emphasis being placed on prevention (Parry and Bennetts 1998:165). It must be remembered that substance abuse does not occur in isolation, it occurs within the context of interacting systems. This involves an interaction relationship between the abuser, family, peer group, the school/work environment and the community.

It becomes apparent that with an increase in substance abuse in the Cape Town area and an increasing public awareness of the problem, nurses will need to play a greater part in the prevention of substance abuse at the primary level. In their activities, nurses frequently encounter patients with alcohol and drug abuse problems as well as those individuals who are at high risk of developing problems. For this reason it is vital that education about substance abuse and related problems becomes a dynamic and integral part of basic nursing curricula in all nursing colleges and universities. Nurses need to be more proactive in educating the general public on substance abuse

problems. A mix of strategies to address substance abuse is needed. According to Murphy (1991:274), nurses have an important role to play in assessing the needs of substance abusers, providing advice on risk reduction and facilitating care.

Nurse educators will need to understand how training can be improved in order to prevent nurses missing early signs and symptoms of abuse. The theoretical framework and curriculum development will be discussed in the following sections.

2.4. Milestones in South African Nursing Education

Professional nursing education began in South Africa in 1877 when Sister Henrietta Stockdale started a one-year nurse-training programme at the Carnarvon Hospital in Kimberley. By the end of the nineteenth century eighteen hospitals were training nurses throughout South Africa. The first Nursing College was established at the Johannesburg General Hospital, in 1921. The responsibility for training rested with the chief matron of the hospital and training was increased to three and a half years. The first university programmes for nurse tutors were introduced in 1937, at the University of Witwatersrand and the University of Cape Town and the first undergraduate programme was introduced at the University of Pretoria in 1956 (Mellish, Brink and Paton 1998:40). In 1965 regulations were published for a combined diploma in general nursing and midwifery. In 1969 a requirement was introduced that all nurses entering basic nursing courses should have a matriculation certificate. In 1972 a combined diploma for general nursing and psychiatry was introduced. Since 1972 with the establishment of the Roll for nursing assistants (now referred to as nursing auxiliaries) no nurse is allowed to practice for gain in South Africa unless he or she complies with entrance to the Register or Roll. In 1975 the nurse's role in community nursing was recognised and 80 hours of theoretical teaching in prevention and promotion of health as well as family planning was introduced. In 1983 the SANC published regulations for a four-year Diploma in Nursing (general, psychiatric,community) and Midwifery, which could only be offered by a university or a nursing college affiliated to a university with a department of nursing. Nursing colleges became more autonomous in 1985/86 with responsibility for training resting with the head of the college who was supported by the college council and senate. By 1986 it became compulsory for all nursing colleges to affiliate to a university nursing department. Currently overall control of nursing education

rests with the provincial health ministry, although nursing is recognised as a higher education function and should eventually resort in the National Department of Education.

The implication of these regulations is that professional nurse education has now become the responsibility of the nursing education institutions and no longer rests with the hospital. Students are registered with the college or university and their clinical placement and tuition is the responsibility of these institutions. Examinations are local and moderated by the university. This new curriculum should provide for a comprehensive preparation of the nurse and should lay a foundation for the future practitioner (Thompson 1988:177-181). Thompson states further , ' It is clear that many education programmes require re-orientation if nurses are to develop the skills for planning and providing the kind of nursing practice which is so urgently required if contemporary and future health care needs are to be met. The shift in the education of nurses should be towards a personal and health centred approach. This necessitates an emphasis on individual, family and community health (Thompson 1988:197).' She further stated that the aim of nursing should move away from the concept of disease and functional disorders and concentrate on assisting the individual, family and community to use their potential for living in all its dimensions. In 1995, following the work of the National Commission for Higher Education (NCHE), colleges of nursing became part of tertiary education and nursing was declared a higher education activity.

2.5. Nursing Education

Modern nursing services form the largest component of any health care system and because of this, health services are only as good as the nursing services that they provide (Mellish, Brink, Paton 1998:40). Training and practice standards are established and regulated nationally and the training and practice of nurses is guided by the philosophy of individual nurse training institutions. With regard to substance abuse education, the status of international nursing education will be discussed generally. South African nursing education, however, will be covered in more depth, with a brief overview of the laws and bodies that govern the nursing curriculum presented.

According to Kotze (1997:51) in order to meet one of the criteria of a profession, nurses need to contribute to the general community and nations through knowledge and skill. The South African Nursing council '----- regards nursing as a caring profession which supports and assists the patient, ill or well, at all stages of life, to achieve and maintain his/her optimal health. Where this is not possible, the patient is cared for so that he/she lives in dignity until death ---'(South African Nursing Council 1999:8).

Nurses work on the front lines of primary level care delivery in many settings e.g. schools, workplaces, homes, clinics, medical offices and emergency departments. This puts nurses in an excellent position to identify, assess, counsel and monitor clients with substance abuse problems as nurses are best placed to deal with the escalating problem of substance abuse. Murphy (1989:251) found that despite an increasing awareness of substance abuse in the United States of America, few nurses have been formally educated to recognise chemical dependence in their patients and to provide appropriate referrals and initiate care. Arthur (1998:478) stated that nurses in Britain need to be better equipped with skills and knowledge in order to deal with early assessment, detection, intervention, education and referrals, as they are in constant contact with patients who may have an early problem with alcohol but who are admitted for other reasons. The World Health Organisation's Substance Abuse Department recognises in their vision for the year 2000 that a strengthening of health professional education and training in the substance abuse area is needed. They cited the health care provider as frequently allowing the problem of substance abuse to go unrecognised and untreated. The WHO identified educating health care professionals on how to recognise, diagnose and manage substance abuse disorders, on routine or emergency visits to the primary health care facilities, as being of prime importance (World Health Organisation Substance Abuse Department 1999). In order to develop an education program that is more adaptable and able to meet the above criteria, the existing knowledge and attitudes of undergraduate nurses needs to be assessed.

The area within which the nurse lives, works and learns, i.e. nursing colleges/universities, hospitals, clinics, schools, families, non governmental organisations and the community, is important when taking into consideration what needs to be learnt. Resources and materials available to nurses and nurse educators

are also important, as is the learner's capacity to learn. Nurse training needs to be a dynamic process, serving the needs of an ever-changing community.

According to SANC nursing regulations (South African Nursing Council 1985), the curriculum should provide for personal and professional development of the student. Nurses need to have a basic knowledge of clinical skills in screening, assessing, intervention and appropriate use of referral systems for clients with substance abuse problems. It is important that health care workers, particularly primary health care nurses, recognise the part played by substance abuse in their patients' problems, and are able to deal with these problems in a non - judgmental way. Benton (1995:19) stated that the pace of change in health care is such that an integrated curriculum is required - one that adapts in response to the changing environment.

Hoffman and Heineman (1987:282) noted that nurses could play a significant role in combating health and social problems related to substance abuse, but nurse education strategies do not appear to be meeting the needs of health care workers. Hoffman and Heineman further stated that the content of what should be taught in nursing is a matter of choice and value judgement by those responsible for the school's curriculum, but if curricular decisions were made on the basis of available information regarding epidemiological data of substance abuse, educational goals may be more congruent with the prevalence of health problems (Hoffman and Heineman 1987:283). Arthur (1998:485) emphasised that there is an urgent need to address the inadequacy in substance abuse training among nurses. He further emphasised his concern at the lack of recent research by nurses in this area .

Although a number of studies have looked at substance abuse content most studies appear to have concentrated on the amount of time allocated to substance abuse training as a criterion for establishing if this was sufficient to cover the subject in depth.

A summary of the surveys dealing with substance abuse training can be found in Table 2.1

TABLE 2.1

Studies on Substance Abuse Training

AUTHOR	RESEARCH	RESEARCH TYPE	TIME
Einstein&Wolfson 1968	Extent of training & time allotted	601 questionnaires mailed to Heads of American professional schools of training. 80% response .	1 class period
Burkhalter 1975	Information and relevance to practice	175 questionnaires mailed to registered nurses in a Californian hospital .53% response	32% stated <5hour
Pokorny, Putman& Fryer 1978	Information on content and time	117 questionnaires mailed to Heads of American Osteopathic, Medical & Allied Health Schools. 89% response.	+- 16.5 hours
Selin & Svanum 1981	Quantify training offered	107 questionnaires mailed to American Psychology association graduates. 69% response.	12% of course time
Carter 1983	Curriculum survey	416 questionnaires mailed to American Nursing School Heads. 66% response.	3-5 hours
Schlesinger&Barg 1986	Extent and type of education	1436 questionnaires mailed to Heads of American Schools of Nursing. 68.3% response.	4% of course time
Hoffman&Heineman 1987	Current curricular content	1035 questionnaires mailed to Heads of American Schools of Nursing. 36% response.	72% <5hrs
Bartek, et al 1988	Educational preparation and relevance	83 questionnaires mailed to nurses in medical/surgical areas in a Midwestern State in America. 35% response.	1-5 hours
Murphy 1989	Education and practice	102 questionnaires mailed to directors of Psychiatric Mental Health Nursing programmes. 82% response.	0-5 hours
Long & Gelfand 1992	Identify nurses knowledge	950 questionnaires mailed to medical & surgical nurses in New York community hospitals. 31.3% response.	Minimal No specifics
Kraatz et al 1998	Type and extent of knowledge	110 questionnaires mailed to Directors of Nursing Schools in Illinois. 64% response.	20min-12hours

Einstein and Wolfson (1970:311) referred to the fact that most nursing schools surveyed noted that there was not enough time in the curriculum to give detailed content. Vander Bilt J, Hall MN, Shaffer HJ, Storti S, Church OM (1997a:150) agreed that although several studies had assessed treatment providers training levels

indirectly by looking at content and time spent on this content, very few studies specifically assessed knowledge and training needs of nurses.

In an overview of studies on the history and current status of substance abuse training in schools of nursing in the USA, Murphy (1989:248) reported that available data suggested an imbalance between academic preparation of nurses in the substance abuse area and the competencies expected of them. Murphy felt that there is strong support for more time to be spent on substance abuse in the nursing curricula as well as a better integration of the subject throughout the curriculum as substance abuse spans the life of an individual. This also led Murphy to note that the hours of instruction reported seem inadequate to cover the full spectrum of substance abuse in depth. Murphy stated that substance abuse content should be integrated into all aspects of nurse education, but nurse educators do not appear to have made the linkage (1989:248-250). Murphy suggested that substance abuse is a neglected and undervalued component of nursing and points to factors that include an overloaded curriculum, which may lead to decreased importance being placed on substance abuse education. (1991:274).

Burkhalter (1975:36) also studied the extent and content of substance abuse training within nurse education. The results reinforced the fact that a large percentage of practicing nurses had little or no knowledge of substance abuse. Warning signs tend to be ignored by nursing staff as the substance abuse is seldom the reason for contact. It is usually a secondary diagnosis and may be overlooked or considered unimportant. Schlesinger and Barg (1986:601) supported the assertion that more curriculum time should be given to substance abuse training.

Sullivan, Handley, Connors (1994:160) noted that substance abuse generally occurred in conjunction with several other diagnoses and in all clinical areas, which led to the recommendation that substance abuse training should be integrated throughout the curriculum, rather than treated as mainly a mental health problem. They further recommended that all nurses should receive a minimal amount of training in substance abuse, as a way of addressing negative attitudes. Burkhalter (1975:37) agreed that the teaching of substance abuse was too narrowly focused in psychiatric nursing with too little content taught in general nursing courses leading to

inadequate provision of care in non-psychiatric areas. Burkhalter further noted that if education and training of nurses in substance abuse is to receive the attention in the curriculum that developments in health policy suggest, educational deficits need to be identified and programs adjusted accordingly.

A survey by Hoffman and Heinemann (1987:285) confirmed the minimal extent of addiction training in nursing programmes. They suggested that inadequate instruction is likely to lead to frustration when dealing with these patients and could lead to avoidance of the patient. Further they emphasised that adequate understanding of the complex interaction between drug user, drug used and environment, requires considerable study and adequate time. Hoffman & Heineman also noted that the relatively small number of required hours of instruction seemed disproportionate to the scope and prevalence of substance abuse problems present in the population at present.

In a Health Professional Task Force survey in the United States of America (USA), assessing the level of alcohol and drug abuse education received by nurses in bachelor and masters training programs reported on by Carter (1983:24), it was also noted that minimal time was spent on substance abuse content. Vander Bilt et al (1997a:151), when reviewing existing data from a number of studies, felt that these and other results could indicate that alcohol and drug abuse are a low priority topic in nurse training programs.

2.5.1. The Legal Framework Affecting Nursing and Nursing Education in South Africa. Nursing is practiced under the Nursing Act , (Department of Health 1978). The Minister of Health publishes these regulations in the Government Gazette. The regulations flowing from this act in relation to registered nurse education (South African Nursing Council 1985) require that a curriculum must be submitted by the nursing colleges/universities to the South African Nursing Council (SANC) for approval. In the case of university programmes these also have to be submitted to the Department of National Education. National regulations (R425) regarding education are drawn up by the SANC, in terms of the power vested in this body by the Nursing

Act. The Health Act and the Medicines and Related Substances Control Act[1] that governs use of medicines also affect nursing to a certain degree. The South African Qualifications Authority Act (Department of Education 1995) was published providing for the development and implementation of a National Qualifications Framework (NQF). The objectives of the NQF are to enhance the quality of education and training by creating a national framework for learning achievement and contributing to the full personal development of each learner, in order to contribute to the social and economic development of the nation as a whole. In order to achieve the objectives a South African Qualifications Authority (SAQA) was formed representing all levels of education. The overall functions of SAQA are to register national standards and qualifications, formulate and publish criteria for registration of bodies responsible for establishing education and training standards and to accredit these bodies, of which nursing is one.

2.5.2. The South African Nursing Council. The South African Nursing Council is an autonomous, financially independent statutory body, initially established by the Nursing Act, No 45 of 1944, and currently by the Nursing Act, No 50 of 1978 as amended. The council is currently reviewing this act (South African Nursing Council Information Booklet 1999:4). This is the statutory body for nurses and midwives, which defines the context of training and approves institutions for education programmes. In terms of the Act, the council controls all matters concerning nursing education and training, section 45(1) of the Act provides for the drafting of training regulations (South African Nursing Council 2000:7). The Nursing Act No. 45 of 1944 included in its provision the establishment of the South African Nursing Council (SANC) to protect the public. Registration is compulsory in order to practice as a nurse or midwife. The four year period of training required for registration is set by the SANC. The nurse as a registered practitioner in South Africa is entirely accountable for her own acts and omissions to the SANC, the registration authority (Thompson 1988:163-199). The SANC issues guidelines to training schools setting out the purpose of the course, course content, minimum number of lectures and the minimum qualification of lecturers. Not all training programmes will be the same, which is why the statutory body (SANC) allows individual nursing education

[1] At present the Medicine and Related Substance Control Act, No.101 of 1965 is in effect as the new South African Medicines and Medical Devices Regulation Act (SAMMDRA) has been withdrawn

institutions to make proposals as to how they plan to meet the recommendations set out in the SANC guidelines.

The SANC constantly reviews training programmes and colleges. Regulations may be amended after taking into consideration the educational needs of the student as well as the changing needs of the community. 'The South African Nursing Council commits itself to assuring quality in health care by safeguarding standards of education and practice of nurses, midwives and support staff so that the South African public receives a competent, safe, compassionate and ethically based health service within the framework of comprehensive health care' (South African Nursing Council 2000:4).

2.5.3. Nursing Colleges and Universities - Each nursing college/university has to interpret the guidelines according to its own educational philosophy, the health needs and perception of student needs, and to formulate a curriculum. This allows each college/university to decide upon its own educational priorities, style of teaching and learning methods and means of evaluation. A curriculum development committee is usually appointed within a college/university from among lecturers to decide on the micro curriculum. The specific choice of lecture content remains with the individual lecturer, who will then interpret the curriculum and devise his/her own learning material, creating an in-depth micro curriculum. As at 31 December 1998 there were 51 colleges and universities offering training in the Comprehensive Diploma or Degree in Nursing (General, Psychiatric and Community) and Midwifery in South Africa, with 11 287 students (Green 1999: personal communication).

2.6. Theoretical Framework

Over the past 50 years, nurse educators have advanced several definitions and theories for nursing education and care. Nursing theory is the foundation of nursing and provides a description of the meta paradigms of nursing i.e. the individual, health, environment and nursing. According to Mellish, Brink and Paton (1998:14) theories can be categorised according to how they describe, explain and connect these 4 paradigms, as well as allowing for the guidance of content of educational programmes. In nurse education, nursing theories should provide the general outline for curriculum content and teaching-learning activities. Theories should also provide

a framework for teaching student nurses how to base practice from a knowledge base, presenting different views and explanations about the nature of nursing and how care is administered (Fawcett 1995:13).

When selecting a framework for nursing practice and education, the nurse or nurse educator needs to establish if the values and beliefs underlying a particular theory are consistent with their philosophy of education and practice (Mellish, Brink and Paton 1998:16). Once a theoretical framework has been selected, nurses may administer care using the nursing process. Before defining nursing models, it is important to understand the term nursing process.

2.6.1. The Nursing Process

In 1979 the South African Nursing Council required that the nursing process be taught in all nursing education programmes. It is generally accepted that the nursing process consists of the following five steps: assessment, nursing diagnosis, planning, intervention, and evaluation. These offer nurses a systematic approach to the planning and delivery of care. The nursing process is a system that enables nurses to put into practice any nursing model, it is not within itself a nursing model. The nursing process is a system that can be applied to patient management. It is a system widely used. Aggleton and Chalmers (1985a:39) note that the use of the nursing process needs to be informed by a particular understanding, of the needs of patients and how they are best met, as without this understanding the nursing process might unwittingly be used to plan and deliver care around medical concerns as opposed to those relating specifically to nursing practice. They further state that if nursing models were not underpinned by nursing theory and the nursing process, nursing intervention would tend to follow the medical model.

2.6.2. Nursing Practice Models

In general terms a model is a tool that attempts to explain a concept to all, and in doing so, fascilitates a better understanding of a process. Some models can be physical i.e. can be touched or manipulated, and other models are more abstract i.e. they cannot be touched but can be looked at and thought about (Aggleton and Chalmers 1984a:24). Nursing models fall into the second category of abstract models, which are made up of concepts of what nursing is. In this way models assist

those working with them to understand more fully what they are doing and why they are doing it.

Each model relates a set of concepts that identify the essential components of nursing practice related to a theoretical base. Aggleton and Chalmers (1984a:25) noted that models are not simply bizarre thoughts and opinion, they are systematically constructed and logically developed, in an attempt to make better sense of what nurses are doing or should be doing.

Fawcett (1995:3) defined a conceptual model as a unified way of thinking with a systematic structure and a rationale for education. She (Fawcett 1995:32) further noted that these ideas should provide a general outline for nursing curriculum content as well as teaching and learning activities. In summary Fawcett (1995:13) stated that the model should provide a frame of reference for both nursing practice and education. The use of a particular model should ultimately influence education and nursing care. Each concept contains general guidelines on rules for research, clinical practice and education.

Different theories have different perspectives on the phenomena identified within the nursing paradigm. Mellish, Brink and Paton (1998:14) divided nursing theories into six categories according to their primary theoretical focus: developmental theories, interaction theories, systems theories, needs/problem - orientated theories and caring theories. Mellish, Brink and Paton (1998:16) acknowledged that certain elements predominate in all theories, but each category of theory has distinctive characteristics that emphasise different phenomena leading to different questions being asked about nurse/patient relationships.

A brief summary of each of these theories according to Mellish, Brink and Paton (1998:15) follows:

- *"Developmental theories* focus on theories of development in order to explain the elements in a nursing situation. They emphasise processes of growth, development, maturation and change. The goal of these theories is to maximise growth.
- *Interaction theories* are based on the relationship between individuals and focus on the communication process. Emphasis is on the individual's perception, self-concept and ability to communicate and perform roles. The goals of interaction theories are to achieve reciprocal interaction.
- *Systems theories* make use of general systems theory as a basis for describing the elements of a nursing situation. Systems theorists suggest that man is composed of sub-systems that, when added together are more than their sum. Individuals are viewed as an open system with each open system able to receive input from the environment, process it, and provide output to the environment. Each system strives for a balance between internal and external forces. The goal is to view the whole rather than the sum of the individual.
- *Needs/problem-orientated theories* have a common basis of human needs for life and dying as a focus for action. The goal is to help the individual to meet his/her own therapeutic self-care demands.
- *Energy-field theories* believe that the individual is composed of energy fields in constant interaction with their environment or universe. The goal of energy theorists is to help the individual to achieve maximum well being.
- *Caring theories* believe that caring is a central focus of nursing and health care services. The goal is for the health care worker to care for the individual."

When selecting a theory as a framework for this research, the researcher first needed to establish which underlying values and beliefs of the theories were consistent with those of the study. Aggleton and Chalmers (1985a:39) noted that there is little research offering guidance on which nursing models might suit the needs of a particular patient and they proposed two important considerations to be taken into account when choosing a model i.e. is the model appropriate for understanding the particular needs of the patient, and can the intervention be evaluated effectively?

Fawcett (1989:523) noted that the conceptual model of nursing that is chosen must be appropriate for the population of care recipients served by the health care institutions, as well as being congruent with the philosophy of the nursing department. It should not be used in a restrictive way, but should be used critically and creatively. Aggleton and Chalmers (1990:42) explained that while it is reasonable to expect to provide general guidelines for intervention, the model must not give detailed guidance on how the nurse should act. Fawcett (1989:526) noted that conceptual model-based nursing practice is most effective if the model is understood and used by all categories of nursing personnel i.e. educators, administrators and clinical practitioners.

While the medical model with its emphasis upon disease may be acceptable to doctors, it appears to be limited when used as a basis for providing nursing care. Aggleton and Chalmers (1985a:38) state that there are a number of deficiencies related to use of the medical model by nurses, not least of all the fact that nurses are not doctors, nor are they 'physician's assistants'. Of interest, Aggleton and Chalmers (1985a:38) note that before the 18th century, medical practice had been holistic, with diagnosis and intervention being carefully referenced to the relationship existing between the patient and the environment. More recently, this approach has been replaced in an attempt to identify anatomical causes of ill health. Kennedy (cited by Aggleton and Chalmers 1985a:38) found these changes unfortunate in that the tendency now, is to under-emphasise political, social and economic forces in the determination of ill health, which are important considerations when dealing with substance abuse.

According to the present medical model the person is seen as a complex set of anatomical parts and physiological systems. Within the medical model a person's social and psychological behaviour are often thought of as the outcome of physiological and biochemical processes and the fact that social and psychological problems can lead to other problems, i.e. substance abuse, is not given due consideration. The medical model identifies problems that arise when there is a malfunction of an anatomical part and as a result the assessment process is through physical examination, in order to establish which anatomical part is malfunctioning (Aggleton and Chalmers 1985a:38). From the above discussion it becomes obvious that the medical model cannot be used by nurses when dealing with the substance

abusing patient, as the patient is not viewed as a whole within a given environment, but rather as a set of organs.

In order to find an acceptable nursing model for dealing with substance abuse in this study, the six major theory groups as stated by Mellish, Brink and Paton (1998:14) were considered. Energy field theory was chosen as it appeared to reflect characteristics of a number of other theories. Energy field theory conveys the dynamic and interacting character of health, education and nursing. Rogers' model (energy-field theorist) was specifically considered in relation to nursing in the substance abuse area. Riehl and Roy and Riehl-Sisca (cited in Fawcett 1989:382) noted that Rogers' model reflects characteristics of both a systems and a developmental model. Appleton and Chalmers (1985b:36) suggested that parallels existed between Rogers and Orem's developmental model in that each has a commitment to the concept of the person as a whole.

It should be noted that substance abuse does not occur in isolation but rather in the context of relationships between the abuser, family and community, within a unique environment i.e. individual and environmental energy fields. Holistic nursing is defined as, *the individual being treated as a whole physiologically, psychologically and socio-culturally.*

Holism is used traditionally in medicine in India and China and influences many health practitioners. Krieger (cited by Aggleton and Chalmers 1984c:36) states that the goal of modern holistic nursing care should be to treat all aspects of an individual by using an integrated approach that considers both the individual and the problem in the context of the uniqueness of the individual and his environment thus giving the situation a more holistic orientation than has previously been the case.

Aggleton and Chalmers (1984b:36) argue that Rogers' work was probably the most fully developed holistic approach to nursing care available at the time. Rogers' model will be explained in more detail.

2.6.2.1. Rogers Model

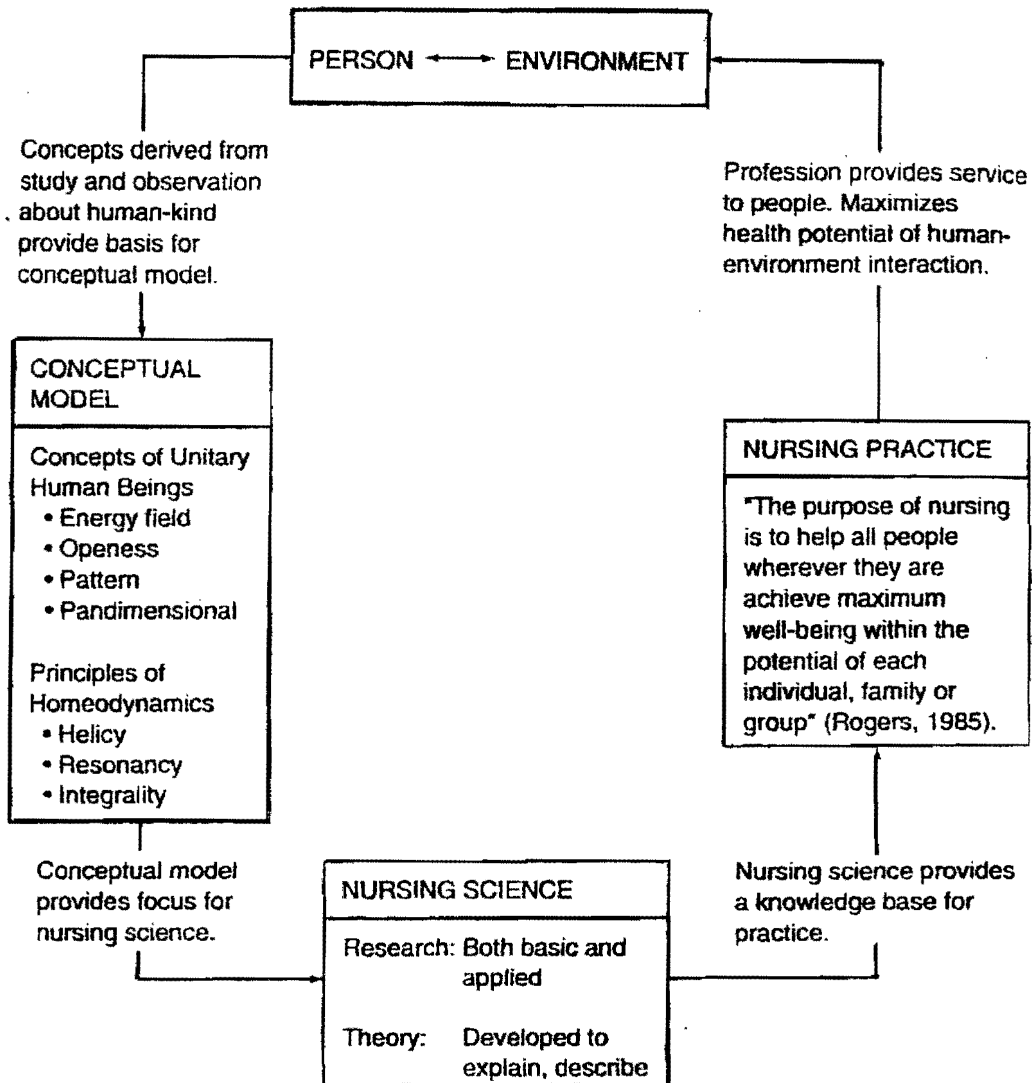
Rogers defines nursing as a learned profession that is both a science and an art with the goal of nursing being, to help the 'person' achieve maximum well-being. Rogers linked the meta paradigm concepts of person, environment , and health and nursing in her statement " Nursing is concerned with human beings and the world they live in ------. The purpose of nurses is to help all people achieve maximum well-being" (cited by Fawcett 1995:272).

Rogers based her model on the following assumptions (cited by Fawcett 1995:265) :-

- Nursing is a learned profession
- The existence of a body of knowledge specific to nurses is essential if nursing is to be recognised as a science.
- Nursing is both a science and an art .
- Nursing science is an organised body of abstract knowledge gained through research.
- The art of nursing is the use of scientific nursing knowledge for the betterment of people.
- People need knowledgeable nursing.
- The practice of nursing is the use of nursing knowledge.
- Nursing's long established concern is with the individual and their environment.
- People have the capacity to participate in change
- The principles of nursing practice are derived from a conceptual system.

A diagrammatic representaion of Rogers' model (Fitzpatrick and Whall 1996:252) is shown in figure 3.1.

FIGURE 3.1 – A diagrammatic representation of Rogers' model



Person and environment

The model emphasises the importance of individual care based on the uniqueness of the person and environment. "Rogers envisioned the nurse using her knowledge creatively in each client care situation, with professional practice flowing from the application of nursing knowledge" (Fitzpatrick and Whall 1996: 247-270).

Rogers defined the individual and the environment as separate yet interdependent energy fields, with nursing actions as a deliberate mutual patterning that involves environmental patterning to promote integrality, helicacy and resonancy (Stevens -

Barnum 1994:17). Aggleton and Chalmers (1984b:58) defined the concepts as follows:

- *Integrality,* suggests that there is a constant interaction between the human energy field and environmental energy field.
- *Helicacy,* deals with the way in which human and environmental change takes place. Rogers in her model explained that interaction as proceeding from relative simplicity to complexity in a rhythmical manner. She likened this to, a slinky toy, with changes taking place in both directions along the spring.
- *Resonancy,* suggests that interaction between human and environmental energy fields is patterned and ordered in its effect.

"Rogers believed that an individual should be examined in his entirety and saw humans as unitary fields of energy interacting as a whole, with other fields within their environment. Rogers defined the person as being a unitary human being within a patterned, open, pan-dimensional energy field, and identified the environment as that patterned open, pan dimensional energy field" (Stevens-Barnum 1994:17).

According to Rogers, nurses should not attempt to make sense of an individual's behaviour in terms of its origins within a person, but should rather understand that individual behaviour arises from the person as a whole, due to interaction with his unique environment. (Aggleton and Chalmers 1984b:58). Rogers further stated that professional practice in nursing should, " seek to promote the symphonic interaction between man and his environment, in order to strengthen the coherence and integrity of the human field. She believed that patterning of the human and environmental fields should be directed and redirected in order to realise maximum health potential" (Aggleton and Chalmers 1985b:37).

Health

Rogers (1970:81) defined health as an expression of the life process. She went on to explain that health and sickness are expressions of the process of life with health and illness being seen as part of the same continuum. According to Fawcett (1995:273) Rogers believed that health was socially defined, which suggests that she expect the specific goals of nursing intervention to be based on social values.

Rogers believed that the major source of individual problems would be conditions of imbalance between human and environmental energy fields. Madrid and Winstead Fry (cited in Fawcett 1995:269) noted that, "there are patterns that emerge from the human process that may cause pain, happiness, illness or odd behaviour. Society may label some of these behaviours as 'sick', but there are no absolutes about what constitutes ' sickness' or 'wellness'. Rogers does not differentiate between wellness and illness. Rogers felt that these were value terms used by society to define health. Illness is the experience of the disease while sickness is the way in which society sees the process of the illness. Rogers defined wellness as the individuals 'ease' and illness as the individuals 'dis-ease' with the environment. Disease is defined as biological process.

Nursing

Rogers regards nursing as a learned profession that is both a science and an art (Fawcett 1995:270). Rogers has always maintained that nursing must be theory based. She envisaged nursing practice as being flexible and creative, individualised, socially orientated and skilful. Rogers saw nursing practitioners as continually translating knowledge into practice (Rogers 1970:285). Rogers also believed that the safe practice of nursing depends on the nature and amount of scientific nursing knowledge the nurse brings to practice, as well as the imagination and intellectual judgement with which this knowledge is used, in other words, a critical thinking nurse. Rogers maintained that the nurse should at all times focus on the person as a unified whole with care based on his/her intellectual skill and judgement (1970:88-122).

Rogers emphasised that the nurse should respond holistically to the patient by attempting to receive as many health related signals from the patient as possible. She further noted that 'disease conditions can no longer be considered as entities unto themselves but must be regarded as manifestations of the total pattern of the individual in interaction with the environment' (cited by Fawcett 1995:285). For example, an unemployed single mother visiting a community clinic following a fall at home, will display a number of health related signals. Avoidance of arm movement and pain may indicate a general over-stimulation in the form of arm pain due to a fracture. Anxiety, general bad behaviour or lack of communication may indicate a

mismatch within the relationship between the woman's energy field and that of the environment. The nurse needs to identify the cause of this behaviour in order to plan individualised care specific to the patients environment. For example, if it becomes apparent that the accident was due to alcohol or other substance abuse, care needs to revolve around changing this behaviour.

Rogers' model requires the nurse to focus on both immediate and long-term goals. The goal of nursing should be to facilitate a move towards a state of greater wellness. Goal setting must continually evolve if an holistic approach is to be maintained. Taking the previous example, the nurse may set a short-term goal to support the fracture and relieve the pain. A longer term goal may be to promote a more harmonious relationship between the patient's energy field and that of her environment. In order to achieve this the nurse would need to be aware of what is causing the mismatch. As an example she may need to look at possible causes for the alcohol/substance abuse. The nurse may only then encourage the patient to repattern her daily activities to achieve greater unity between himself and the environment (health education)

Rogers suggests that, "in order to respond holistically the nurse must be imaginative and innovative when applying nursing knowledge to practice. At all times the focus of nursing intervention should be upon the person in her entirety and upon the re-establishment of balance between her energy fields" (1970:88-122).

Nursing skill involves selecting the most appropriate means of intervention in order to assist the patient in achieving equilibrium. When dealing with the patient in the clinic, it may be appropriate to splint the arm and administer analgesia; however, first talking to the patient about the cause of the accident may enable the nurse to ease the patient's energy field conflict with that of the environment. She may also discuss with her and plan ways in which her energy field may better match that of the environment. By assisting the patient to find ways of resolving possible psychosocial and economic problems within her environment, as well as taking into account that she still has children to care for.

Quinn (cited by Aggleton and Chalmers 1985b:38) notes that, "evaluating the extent to which a nurse has been successful at repatterning the energy field is not a simple process." She suggests that a number of phenomena may be looked for which may indicate that intervention has been successful. It may be possible to identify that the pain and fracture have been dealt with, but it will be less easy to establish whether repatterning has occurred with regard to the cause of the accident i.e. a change in behaviour. The patient may or may not show a greater awareness about the relationship between environmental factors, the reason for admission and nursing problems i.e. substance abuse.

Education

The focus of the nursing curriculum and the purpose of nursing education are identified in the following quotations by Rogers (1970:88):

" The education of professional practitioners in nursing requires the transmission of a body of scientific knowledge specific to nursing. This body of knowledge determines the safety and scope of nursing practice. The imaginative and creative use of knowledge for the betterment of man finds expression in the art of nursing. Education opens the doorway to the art of practice. The purpose of professional education is to provide the knowledge and tools whereby an individual may become an artist in his field."

It appears from the above information that Rogers's model could be used as a conceptual framework on which to base nurse education, especially in the area of substance abuse. When relating Rogers' model to this study it is useful that Rogers' model avoids conceptualising substance abuse as a problem within a discrete system, but provides for an understanding of the multidimensional nature of substance abuse in terms of aetiology, consequences and nursing care.

Fawcett (1989:393) noted that the Rogerian concept can be used in diverse settings, ranging from community based health service to hospitals and if need be into outer space. Further, she noted that the model is applicable to individuals and groups including families, social groups, communities and crowds, which is relevant when dealing with substance abuse. The South African Nursing Council (1999:4) states that, 'the SANC commits itself to assuring quality in health care by safeguarding standards

of education and practice of nurses, midwives and support staff so that the South African public receives a competent, safe, compassionate and ethically based health service within the framework of comprehensive health care.' Rogers' holistic model appears to be aligned with this philosophy.

Rogers' model complements the philosophy of the SANC, as she believed that broad principles of nursing should be introduced first and then more advanced levels of understanding and application should follow, enabling the nurse to creatively care for the whole person (Sullivan et al 1994:158).

Rogers (cited by Fawcett 1989:397) stated that,' in the educational process we do not need to teach students how to do everything, rather we need to teach them how to figure out how to do everything' i.e. a critical thinking nurse.

Radke, Adams, Anderson, Bouman, Rideout and Zigrossi's educational framework (1991:9) is based on the Rogerian theory. They believed that nursing derives its rights and responsibilities from society and is therefore accountable to society as well as the individuals that comprise that society. Further they emphasised that the nurse should function as a caring professional in both autonomous and collaborative professional roles, using critical thinking, ethical principles, effective communication and deliberate action in order to render holistic care, facilitate access to health care and aid patients in making decisions about health (Radke et al 1991:12) .

The nurse has a duty to provide acceptable standards of nursing care to the patient; therefore the content of the nursing curriculum should be influenced by the needs of the patient. When planning a curriculum it must be remembered that health is a subjective state that includes the well being and optimal functioning in all dimensions of the life (biological, psychological, social, cultural and spiritual) of the patient and is affected by the changing environment , consumer and nurse. The patient should at all times be the central focus of nursing and nurses must understand that health can be affected by illness, disability or dysfunction. Ultimately, the patients must define health for themselves and make their own decisions regarding their health.

2.6.3. Curriculum Planning and Implementation

Bevis and Clayton (1988:14) noted that at a time when nurse theorists were providing creative, less restrictive approaches to nursing practice, e.g. Rogers, nursing education remained linked to behaviourist models. They went on to note that curriculum development and the product it produces dictate the direction and scope of nursing attitudes, knowledge and skills. These products of curriculum development then in turn shape a curriculum that is prescriptive and rule-driven and as such the curriculum lacks responsiveness to the uniqueness of a given environment. They further noted that there should be no rules or guides on how to develop a curriculum. They believed that philosophies and conceptual frameworks were an attempt to bring a diverse group of strong-minded individuals into some form of amalgamated unity.

Bevis and Clayton (1988:16) suggested that perhaps as nursing was a practice-based profession, behaviours such as thoughts, feelings, perceptions, attitudes, values etc. should be viewed. The question that Bevis and Clayton asked was, ' can prescriptive, rule-driven curricula provide the impetus for creative, individualised, caring, human-services oriented, humanistic, critical thinking, human science education that should form the basis of education?' Radke et al (1991:10) stated that the purpose of nursing education should be to prepare the student for the practice of holistic nursing and lifelong learning.

Church and Babor (1995:278), in discussing the issue of curriculum change in substance abuse training in schools of nursing, emphasised that integration throughout all nursing courses was needed. They viewed curriculum development as a dynamic process of skills and knowledge, as well as attitude change, leading to the promotion of substance abuse. They also emphasised that the mere availability of curriculum material was not the answer as it did not guarantee that nurse educators would include the content. The educators also needed to be educated, the educational needs of both the learner and educator need to be addressed . Church and Babor further stated that nurses needed formal (didactic) and clinical training (experiential), in order to enhance skills and knowledge and inculcate positive attitudes.

Bevis (1993:102) emphasised that content identification and selection, are critical in curriculum development. Owing to the fact that nurses focus on people and health

related experiences, an approach is needed whereby adequate breadth and balance of content is achieved. She further emphasised that substance abuse should be included in every subject as it affects every aspect of human development.

Murphy (1989:247-250) noted that substance abuse could be dealt with within curricula organised in clinical departments or integrated throughout the curriculum. Murphy further stated that nursing knowledge should be organised holistically and integrated into the domains of client, environment, health and nursing care.

Heineman and Estes (1974:575) noted that integrated study was the only mode that provided for concurrent study of substance abuse throughout every phase of a nurses' training. They noted further that the study of substance abuse in the context of other social and health problems provides a meaningful learning experience. This enhances the students' understanding of the interrelatedness of social, emotional and physiological factors. Huba, Wingard and Bentler (1980:35) emphasised that as well as needing a basic core knowledge in order to understand substance abuse, nurses also needed to understand how sociological constraints of alienation, powerlessness, status and peer pressure combine with psychological knowledge about values and social reinforcement leading to substance abuse. The only sure way of dealing with this complex interrelated problem is through an integrated curriculum.

Looking at education from another aspect, Carl Rogers, a humanistic theorist, envisaged learning as a continuum of meaningless learning at one end to experiential learning at the other, creating critical thinkers. Meaningless learning or fact is where the learner does not yet see the relevance of information and is concerned only with cognitive functioning. Experiential learning involves the whole person There is a merging of logical and intuitive thinking, knowledge, feelings, concepts, experiences, ideas and their meanings, allowing the learners to clarify new ideas, express feelings and reflect on experiences. He envisaged the goal of education as not only cognitive, but also as the development of a fully functioning person.

Carl Rogers also believed that education should be student-centred, with relevance placed on the subject matter, student participation and involvement, and self-evaluation. He saw the educator as a facilitator, not an information-giver, which

would require a sharing of knowledge as well as a positive interpersonal relationship, allowing the learner to grow. In order to facilitate, the educator must be willing to admit to mistakes and learn, there must be trust and acceptance and the learner must be accepted as an individual. The educator must be aware of individual students and recognise their uniqueness. Carl Rogers believed that a student's learning could be enhanced by guided reflection (Mellish, Brink and Paton 1998:33-34).

Bevis and Clayton (1988:17) defined learning as being characterised by the logical structure of data into meaningful wholes. Inquiry learning is defined as the art of investigation, the search for truth and the generation of theory, which enables the individual to identify, clarify and categorise problems in an attempt to be responsive to the society in which they serve. Freire (1972:52) noted that caring does not just instruct, it educates. He further noted that one of the characteristics of education that distinguishes it from other types of learning, such as training, is that it frees. In order to be freed individuals must be educated to become critical thinkers.

Watson and Glaser (1980:2) defined critical thinking as, ' *a composite of attitudes, knowledge and skills including:*

- *Attitudes of inquiry that involve an ability to recognise the existence of problems and a general need for evidence in support of what is purported to be true.*
- *Knowledge of the nature of valid inferences, abstractions, and generalisations which the weight or accuracy of different kinds of evidence are logically determined.*
- *Skills in applying the above attitudes and knowledge.* '

Murphy (1989:250) emphasised that a curriculum cannot be planned or implemented effectively without major effort being concentrated on attitudinal and behavioural changes among both faculty and nurses. Murphy expressed concern at the lack of current knowledge and the negative attitudes toward substance abusers among health professionals, citing these as a serious deterrent to curricula change. Brookfield (1989:2-25) defined critical thinking as an awareness of the assumptions under which we act. It causes one to be open to alternate ways of looking at and behaving in the

world. According to Adam (1999:117) however, no tool to measure critical thinking skills specifically in the nursing environment has been developed.

From the reviewed literature it has become apparent that the number of hours allocated to substance abuse internationally does not appear to allow for in-depth cover of substance abuse content. No studies could be found that measured exit competencies ***per se***, but several of the above studies involved trained staff, who self identified a lack of knowledge. A number of studies have shown a correlation between lack of knowledge or experience and negative attitudes. The reason for this lack of knowledge is not clear, but there appears to be a recurring theme of decreased knowledge and limited input on substance abuse. The surveys were limiting in that it is not clear whether substance abuse was looked at as an individual module only, or whether the hours included integration of the subject into other areas.

As discussed throughout the previous chapters, substance abuse occurs through the interaction and influence of multi-contextual factors. A more integrated approach is needed in nurse education, in order to empower nurses with knowledge and beliefs that are conducive to effective nursing care of the substance abuser. The nurse is not the 'panacea' in the prevention of substance abuse; however she is ideally situated to make an impact on the problem, but only if she has the necessary knowledge and correct attitudes. Nursing colleges/universities exert a strong influence over the attitudes and knowledge of nurses; they are also accountable for the nurses training. The logical argument would therefore appear to be that change needs first to come about in the nurse training institutions.

2.7. Attitudes of Nurses

Murphy (1989:248) noted that the prevailing attitudes that condone excess and ignore the consequences of substance abuse, might be present among nurses. Heinemann and Estes (1974:578) indicated that attitude could be the nurse's greatest asset or strongest deficit when relating to the substance-abusing patient. Heinemann and Estes noted that although nurses occupy a critical position in the treatment of substance abusing patients, in most curricula, students do not have direct experience related to substance abuse. Schmid and Schmid (1973:247) in a study of student nurses in Buffalo, New York, found that nurses had more negative attitudes toward individuals

with alcohol problems than to physically disabled people. They concluded that nurses had less accepting attitudes toward the specific disability of alcoholism. Schmid and Schmid further suggested that conventional programmes of nurse training had not produced significant changes in nurse's attitudes and recommended that nurse educators should make innovative changes in teaching methods or content with a focus on attitude modification (Schmid and Schmid 1973:247).

Rosenbaum (1977:507) found that public health nurses with negative attitudes toward people abusing substances not only overlooked symptoms of alcoholism but also failed to refer those they did identify. Reisman and Shrader (1984:274) had similar findings in a study of industrial nurses at the Ford motor plant, Michigan. They found that nurses with a negative attitude toward people abusing substances were less likely to identify an alcoholism problem and refer the individual, than those nurses with more positive attitudes. They identified a positive correlation between lack of knowledge and negative attitudes. Starkey (1980:826) agreed that if nurse's beliefs and attitudes toward the alcoholic patient were negative and moralistic, the care given to that person may be minimal and the problem exacerbated.

Ferneau (1968:40-41) was one of the first to examine the attitude of nurses towards patients with alcohol problems before and after a period of affiliation in a psychiatric hospital. Ferneau identified that nurses had negative attitudes toward patients with an alcohol problem, but noticed positive changes in nurses' attitudes after spending a 12-week allocation in an alcohol rehabilitation unit. Harlow and Goby (1980:59-60) repeated Ferneau's study and reported that the lack of addiction training among nurses is manifest in their attitudes. They found that the experience of nursing students in a treatment program for alcoholism has a significant impact on improving their knowledge and attitudes toward individuals abusing alcohol, allowing them to deal more confidently with substance abuse and as a result rendering more effective care. Jack concurred that nurses' attitudes towards substance abusing patients could be affected positively by educational and clinical experience (Jack 1989:27). This was probably due to the fact that students had built up a relationship with these people, which had assisted them in setting aside pre-existing biases.

Using survey information Hagemaster, Handley, Plumlee, Sullivan and Stanley (1993:422) developed a two and a half-day workshop curriculum to train 60 community based Kansas nurses in substance abuse intervention. The workshop was evaluated through pre- and post-measurement of participants' attitudes and knowledge of alcohol and drug abuse. It was found that the participants' knowledge of substance abuse increased significantly and as a result attitudes towards substance abuse changed. Follow up sessions three months later found that participants nursing practice was also influenced by the workshop. In conclusion, Hagemaster et al found that the workshop had influenced participants' knowledge, attitudes and practice positively.

Sullivan et al (1994:161) emphasised that if nurses had a negative perception of substance abusers the quality of care provided to these patients would be affected. They believed that attitudes are shaped by both knowledge and previous personal and professional experience.

Sullivan et al (1994:160), also found that on a theoretical level nurses believe that substance abuse may be caused by physical, psycho-social or genetic factors rather than lack of willpower, but that in practice, nurses are generally less understanding and have negative attitudes toward these patients. They suggested that introducing into all curricula a self-awareness module that would help the student to identify and address his/her own attitudes and beliefs could perhaps rectify this problem. They further recommended that educators should be trained to integrate substance abuse education throughout the curriculum as more in depth knowledge may contribute to more positive attitudes.

2.8. Conclusion

This literature review was undertaken to review the provision of substance abuse education and training of nurses and how this has affected care. A shortcoming in the literature review of nurse training may be that the research is mainly representative of the United States of America and the United Kingdom as few published studies of this nature could be found for South Africa. A large number of the available research looked at the number of hours allocated to substance abuse training and how this has affected knowledge and attitudes of nurses.

If the student is to benefit from these changes a better understanding is needed of the students' learning needs as opposed to what educators believe the student needs to know.

CHAPTER 3

METHODOLOGY

'There is a great need for training health and welfare professionals including doctors, nurses, social workers and psychologists on the topic of addictions. It is important that doctors and other health care workers, particularly primary health care nurses, recognise the part played by substance abuse in their patients problems, and are able to deal with these problems in a non-judgmental way.'
(Department of Welfare 1999:29-30)

3.0. Introduction

This chapter describes the aims and objectives of this study. The research design and methodology used in the study is discussed, including how the questionnaire was developed and the pilot study administered. Data collection methods are described.

3.1. Aims and Objectives

The aim of this study was to identify the specific needs of nurses' education by assessing if they have gained sufficient knowledge and developed appropriate attitudes from their educational programme enabling them to deal with substance abuse effectively. Secondly, curriculum content and the way in which the universities and colleges address abuse education were also assessed.

The objectives were:

1. To assess the student nurses' knowledge with regard to substance abuse.
2. To assess the student nurses' attitudes towards substance abusing individuals.
3. To assess if nurses perceive their training to be of benefit when dealing with substance abuse patients.
4. To assess if substance abuse training is integrated in basic nursing education programmes.
5. To determine if educators attach importance to substance abuse training.
6. To make recommendations regarding incorporation of substance abuse education into existing programmes.

3.2. Study type

This is a cross sectional, descriptive study using standard questionnaires.

3.3. Study Population and Sampling

The study population for the student nurse questionnaire was drawn from all fourth year student nurses attending nursing colleges and universities, in the Western Cape. Fourth year nurses were chosen because by the end of their education programme nurses should have covered all aspects of health care. By the final year of nursing most nurses would have been exposed to patients abusing substances. Fourth year student nurses would have had a minimum of three and a half years nursing experience, during which time knowledge and attitudes toward substance abusing patients would have been shaped or changed by the curriculum and clinical experience.

Seven nurse education institutions in the Western Cape were approached to participate in the study and six agreed to take part. The study was comprised of two parts. In part one of the study all available fourth year student nurses were surveyed using a questionnaire. The only criteria stipulated was that students were able to read, write and understand English and were present on the day that the survey was administered.
The following colleges/universities participated:

University of Stellenbosch	23 nurses
University of Cape Town	17 nurses
Sarleh Dollie Nursing College	109 nurses
Carinus Nursing College	63 nurses
Nico Malan Nursing College	60 nurses
Otto du Plessis Nursing College	72 nurses

The study population for the lecturer questionnaire was drawn from each of the colleges/ universities involved in the study, the college/ university nominated 2 lecturers. Each lecturer was required to complete a questionnaire. The only criteria for inclusion were that they could read, write and understand English and that one of the lecturers was currently involved with substance abuse teaching. The second lecturer chosen was preferably also involved with the four year course, but from a different department.

3.4. Instruments

3.4.1. Choice of Method

It was decided to use a quantitative survey method as opposed to a qualitative method as a large sample group was being used and a relatively short time was available to the researcher. According to French (1988:15), the most widely used method for measuring knowledge is through the administration of a questionnaire. However, there is no standard tested questionnaire.

Based on the literature review two instruments were developed. Both questionnaires were drawn up according to the objectives of this study. The primary aim in designing the questionnaires was to communicate adequately with the respondent. Consideration was given to the sequence of questions. Cronbach (1982:3) described the phenomenon of 'response set' in self-reported questionnaires. This phenomenon is described as the same answer being given repeatedly if questionnaires become long and tedious. A suggested solution was to vary the types of questions and layout. The choice of questions, their order, wording, and layout are understood to be important in determining the quality of the response (Katzenellenbogen, Joubert and Yach 1991).

The questionnaires were arranged in such a way that general questions were at the beginning leading to more complex questions towards the end. Special attention was also paid to the general context in which the questions were set (the frame of reference) and the nature of the responses expected (the information level). As substance abuse can be a sensitive subject special attention was paid to careful wording of the questions. Every precaution was taken to avoid influencing the response. Cormack (1991: 222) noted that immediate visual impact would either arouse the respondents' interest, or discourage completion. He emphasised that all self report measures should clearly provide general information on the questionnaire. The layout of the questionnaire should also emphasise any special points or instructions in bold or larger print or underlining.

Questionnaires can be self-administered or be administered in interview style. There are advantages and disadvantages to both. The most cost and time effective way of gathering large amounts of data is to use a self-administered questionnaire. Interview administered questionnaires usually have higher response rate and flexibility than a

self-administered questionnaire, but interviews can be seen to be threatening (Cormack 1991: 190). As assessing individual knowledge and attitudes could be seen to be threatening, self-administration was chosen. The problem of a low response was overcome by administering the questionnaires during 'on duty' time when student nurses were in college. Lavan (1985:74) noted that research has shown that a 'captive' respondent (i.e. waiting room or classroom) who is not expected to give of their private time is more willing to spend time completing a lengthy questionnaire and less likely to return an incomplete questionnaire.

The methodology of the pilot study will be discussed first, followed by a discussion of the formal study.

3.4.2. Pilot Study of Student Nurse Questionnaire (Appendix A)

This was a self-administered questionnaire consisting of fifty-nine questions. Although the student nurse questionnaire was eight pages long it only took 20 minutes to complete. The questionnaire was divided into three sections that aimed to measure knowledge, attitudes and past experience.

Background information. This section consisted of twenty-two mainly closed response questions using, Yes/No and multiple-choice questions. Respondents were asked to place a cross (X) next to their choice of answer. 'Filter questions' were used to guide respondents through different sets of questions. If a respondent answered 'No' to one question they were asked to skip the following questions and proceed to the next relevant question. This route can cause confusion and in order to minimise the confusion filtered questions were placed at the end of a page with highlighted instructions.

The following demographic and other data were collated. Closed-ended questions, where the respondent was asked to select an answer from a list provided, were predominantly used.

- Age
- Sex
- Language

- Smoking, drinking and addictive behaviour

The following information was collected as it was thought that substance abuse might affect the way in which nurses responded to patients. The aspects of education covered in the questionnaire were based on information gained from the literature review.

- the year in which substance abuse education was first introduced
- areas covered and teaching methods used
- amount of time allocated to substance abuse education
- perceived usefulness of information.
- areas of clinical contact
- who nurses thought should be dealing with these patients
- how nurses perceived their competence when dealing with substance abusing patients

Attitudes. Section 2 consisted of seventeen questions using a four-point Likert scale. A Likert scale was chosen as attitudes can be measured more specifically using 'degrees' of agreement or disagreement (Cormack 1991:220). The questionnaire involved both positive and negative statements in order to avoid a 'response set phenomenon'. The respondents were asked to indicate their level of agreement or disagreement with each statement by placing a cross (X) next to their choice . The questions asked in this section were based on information gained from the literature review .e.g.

- how comfortable nurses are about dealing with substance abusing patients.
- how nurses feel about substance abuse
- who nurses believe should deal with substance abuse and how.

Knowledge. This section consisted of twenty-two true/false/don't know questions. An agreement/disagreement scale was used. Subjects were asked to choose between true/false/don't know. Respondents were asked to place a cross (X) next to their choice. The knowledge questions were based on local trends and information found in the literature review e.g.

- pharmacological knowledge of substances
- physiological effects of various substances

3.4.2.1 Validity and Reliability of Student Questionnaire

As with all methods of data collection, it is necessary to evaluate any instrument before a formal study. The questionnaire was drawn up from various sources. (Burkhalter 1975, Schlesinger and Barg 1986, Sancho 1994) and a draft copy was sent to the following substance abuse specialists and organisations, Professor S.A. Murphy (USA), SANCA (Port Elizabeth), CTDCC (Cape Town), Dr. Charles Parry (MRC). Experts were asked for comments on face, content and construct validity. In the attitude section experts were asked to identify whether statement were positive or negative. Only those statements that all experts agreed on were included in the questionnaire. All comments were analysed and further drafts drawn up and sent back to the experts for comment. A final draft was then piloted.

Face validity was checked to assure that the questionnaire was measuring the construct as identified i.e. 'attitude or knowledge of nurses toward substance abuse'. The questionnaire was given to experts in the field for comment. The content validity i.e. attitude, knowledge and training was checked by experts to make sure that the questionnaire was measuring all areas equally. In order to reduce error and increase the validity and reliability of the questionnaires, questions were short and covered single concepts.

The initial questionnaire was pre-tested in a pilot study. The pilot study was done to test for validity, reliability and ease of administration. A test-re-test was used to test for reliability. The questionnaire was delivered to the same pilot group of 33 multilingual third year diploma students at the B.G. Alexander Nursing College in Johannesburg, twice, one week apart, on Monday 12 April and Friday 16 April.

On the first administration individual student questionnaires were numbered. Each questionnaire had a unique number that students were asked to memorise. As a cross reference the researcher drew a plan of the classroom and allocated a number to each desk. On the second sitting students were asked to write their individual number on the questionnaire. The researcher crosschecked this. This process enabled the researcher to link the two questionnaires, while maintaining anonymity.

Pearson's correlation co-efficients were calculated on the attitude section. Kappa co-efficients(κ) were calculated on the knowledge section and frequencies on background information. A World Health Organisation (WHO) Statistical Package, EPI INFO 6, was used for analysis. The pilot study also served to check the method of administration, to ascertain exactly how long respondents needed to complete the questionnaire and to establish if the target group easily understood the questionnaire.

3.4.2.2 Administration Procedure of Pilot Study

Permission to carry out the study was obtained from the B.G. Alexander college. Thereafter, the head of the relevant nursing department was appointed as liaison. An appointment was made to administer the questionnaires. The questionnaires were administered and supervised by the researcher during April 1999. All questionnaires were completed in a classroom setting.

The researcher introduced the study to the students, explained the reason for the study then instructed respondents as to how to complete the questionnaire. Students were asked to answer all questions. Further it was explained that substance abuse education referred to any substance abuse input in any context, not only classroom or formal input. In addition, instructions appeared on the front page and throughout the questionnaire. Anonymity, confidentiality and voluntary participation was emphasised to ensure that individual rights were not infringed. Students were also made aware that the researcher would be available, after the questionnaires were completed, for anyone that may need information or help. Literature was made available for those that expressed an interest. The researcher remained with the respondents in order to answer any general questions with regard to the procedure. The administration process lasted twenty (20) minutes, but all students were given time to complete. The researcher collected questionnaires immediately with no one else gaining access to them, in order to maintain confidentiality. A discussion was held after the second administration and respondents were encouraged to give feedback on problems and general observations. A number of changes were made according to suggestions made by the respondents and statistician. The format of the questionnaire was altered to make it more easily understood.

The pilot study served to check the method of administration and to measure the time needed to complete the questionnaire. The pilot study was also intended to establish if the questions and questionnaire format were easily understood by the target group.

3.4.2.3 Amendments to Questionnaire

Overall Format

The following changes were made to the questionnaire format according to suggestions made by the respondents.

- The format of the questionnaire was altered to make it more easily understood, as respondents found question choices confusing.
- As respondents were not sure where to mark answers, lines were inserted for each answer.
- The overall layout of the questionnaire was changed to book format as respondents found it difficult working with a 7 page stapled document.

Questionnaire (Appendix B)

Answers to each question were compared in the test-re test. Test-retest reliability refers to the extent to which a measurement produces the same results on two separate occasions (Flisher, Evans, Müller and Lombard 1999:3). Pearson's / Spearman's correlation co-efficient was calculated on the numerical data in the attitude section. Kappa co-efficients were calculated on the categorical data in the True/False knowledge section. Frequencies were calculated on categorical background information.

Attitudes Section

A Pearson's correlation was calculated between the pre-test and post-test in order to test for numerical reliability in the attitude section. A Pearsons co-efficient of $r = 0.72$ was calculated for the complete section, showing a positive correlation between the two tests thereby verifying reliability. A 95% confidence interval was calculated. A clustered scatter gram was produced showing a close clustering between answers of the test-retest (Appendix B1).

Knowledge Section

Kappa co-efficients were calculated on the True/False knowledge section to test for reliability. Kappa co-efficients were used for categorical data. An epidemiological calculator programme, epitables ,was used to produce statistics from summary data entered into the computer. A cross tabulation of the test and re test true/ false frequencies for each question were calculated in order to find the kappa co efficient **(Appendix B2)**. A Kappa value provides an indication of the agreement between the two administrations beyond that which would be expected due to chance. A $\kappa = 100\%$ shows perfect agreement exists between the test-retest data, showing that in all probability the instrument is reliable (Flisher et al 1999:7).

Probability values are commonly used to measure the precision of a survey (computers calculate the exact p-value on command). The probability value represents the probability of an error. With a significance level of 5% we are accepting a one in twenty chance of error. The probability of error needs to be as small as possible, as the lower the probability error the higher the reliability. For this study those questions scoring a p-value < 0.05 were considered reliable, two questions were discarded as the p-value was >0.05. A third column 'Don't Know' was added to the True/False table at the suggestion of the statistician to allow a further option to encourage students to answer all questions and decrease the possibility of students skipping questions. A number of questions were reworded or discarded. All comments were analysed and the questionnaire finalised.

3.4.3. Lecturer Interview of Pilot Study (Appendix C)

The second instrument used a semi-structured interview administered by the researcher to nursing lecturers. The interview consisted of 30 open ended questions which asked for background information on the lecturer and nursing curriculum, in order to understand how substance abuse is taught, as well as if it is integrated throughout the curriculum. Open-ended questions were chosen as they allow the respondent to answer in their own words and are exploratory. Open questions allow the researcher to evaluate both attitudes and knowledge. Open questions allow the researcher to assess what the respondent feels and thinks as well as what the respondent knows. Closed questions were not used as they invite the

respondent to choose from pre-assigned responses and do not necessarily obtain new information (Cormack 1991 : 217). Open questions assume that the respondent will have their own views on a subject and invite them to express those views. The questions were phrased in such a way as to allow the respondent 'space' to consider their responses. One of the disadvantages of open questions is that the respondent may answer at length making analysis difficult. As the interview was exploratory in nature open questions were considered best. The main advantage of open-ended questions is that the individual can define her own frame of reference.
The interview was divided into two sections :

Background Information - This section consisted of 5 questions relating to:

- age
- professional qualifications
- subjects taught
- academic year taught
- current area of employment.

Knowledge - This section consisted of 25 open ended questions mainly related to the nursing curriculum with regard to substance abuse knowledge as well as how and when substance abuse is taught during the four year course. Lecturers' willingness to further their education in substance abuse was also explored.

3.4.3.1. Steps Taken to Increase Validity and Reliability.

The researcher used a semi structured interview schedule, which was adapted from a schedule used by Sancho (1994) in her research study of the development strategies for primary prevention of substance abuse in adolescents. Face validity was checked to ensure that the interview was measuring the construct as identified i.e. 'attitude, substance abuse knowledge of lecturer, curriculum content and integration'. The interview schedule was given to experts in the field for comment. The content validity i.e. attitude, knowledge and training methods was checked by experts to make sure that the interview was measuring all areas equally. All comments were analysed and further drafts drawn up and sent back to the experts for comment. A final draft was then printed.

3.4.3.2. Administration Procedure of Pilot Study

The pilot study interviews were not taped as the interviewees felt that it was impinging on their right to anonymity and privacy. Notes were taken during the interview in order to avoid error of recall. All interviews were conducted in the lecturers' offices, at a time convenient to the lecturer. The interviewee was given a full explanation regarding the purpose of the study in order to gain full and honest co-operation. The interviewee was guaranteed anonymity.

3.4.3.3. Reliability of Interview Administration

The researcher felt that on analysis of the interview, the information needed during the interview took time to find and the interviewees became anxious when information was not readily available. The interviewee also became anxious at the amount of time needed to conduct the interview. As a result, the interview was converted to an anonymous questionnaire that was handed to the same respondents (i.e. those lecturers interviewed previously) to answer in their own time. All the required information was obtained and information appeared to be more factual, accurate and reliable, when it was checked against the college curriculum.

It was decided that in the formal study the interview would be replaced by an anonymous questionnaire, which could be returned in a self-addressed envelope giving the lecturer time to complete the questionnaire and find the relevant information at their leisure.

3.5.Formal Study Procedure

Permission to carry out the formal study in nursing colleges was obtained at a principals' meeting of the 4 nursing colleges i.e. Sarleh Dollie Nursing College, Carinus Nursing College, Nico Malan Nursing College, Otto du Plessis Nursing College, as well as from each individual college. Individual heads of University Nursing Departments were approached for permission. Thereafter, the heads of the relevant nursing departments appointed a liaison person through whom appointments were made to administer the questionnaires. All questionnaire administration was administered and supervised by the researcher during the months of April-June 1999. Depending on the size of the groups and student allocation questionnaires were

completed in one, two or three sittings. All questionnaires were completed in a classroom setting.

The colleges/universities participated on the following dates:

University of Stellenbosch	25 May
University of Cape Town	26 April
Sarleh Dollie Nursing College	27 May / 7 June
Carinus Nursing College	5 May
Nico Malan Nursing College	3,11, 14 June
Otto du Plessis Nursing College	17 June

3.5.1. Administration of Student Nurse Questionnaire (Appendix D)

Questionnaires were administered in a controlled classroom setting and the researcher observed respondents continuously. The researcher introduced the study to the students, explained the reason for the study then instructed students on how to complete the questionnaire. Students were asked to answer all questions. Further it was explained that substance abuse referred to any substance abuse input in any context, not only classroom or formal input. In addition, instructions appeared on the front page and throughout the questionnaire. Anonymity, confidentiality and voluntary participation was emphasised in order to ensure that individual rights were not infringed. Students were asked to tick their consent on the information page of the questionnaire. Students were also made aware that the researcher would be available, after the questionnaires were completed, for anyone who may need information or help. Literature was made available for those who expressed an interest. The researcher remained with the respondents in order to answer any general questions concerning the procedure. The administration process lasted twenty (20) minutes, but all students were given time to complete. The researcher collected questionnaires immediately with no one else gaining access to them.

The following methods were used to ensure that questionnaires were completed as honestly and accurately as possible:

- The importance of accurate data and the students' own responses were explained to the respondents.
- respondents were assured that at no stage would any member of teaching staff gain access to the questionnaires. Only overall results would be made available.
- Respondents were asked to sit at individual desks and treat the questionnaire as an exam, with no talking or copying from each other.
- Completed questionnaires were returned directly to the researcher.
- The questionnaire was coded for analysis.

3.5.2. Administration of Lecturer Questionnaire (Appendix E)

A questionnaire was handed to two lecturers at each college /universities on the same day that the student nurse questionnaires were administered. The reasons for the study were explained and lecturers asked to complete the questionnaire in their own time in as much detail as possible. They were asked not to identify themselves on the questionnaire. A stamped self-addressed envelope was attached to each questionnaire to return the questionnaire on completion. The researcher allowed two weeks for receipt of the questionnaires and then called individual colleges/universities until all questionnaires were returned. Two questionnaires were not returned as one lecturer had gone on extended leave and the other had gone on maternity leave. It was decided that these two questionnaires could be excluded from the study without bias as at least one questionnaire had been received from each institution.

3.6. Analysis of Data

Descriptive analysis of data was done using a Centre for Disease Control Program EPI INFO 6. For the student nurse questionnaire the first step was to provide frequencies and percentages that were then presented in tables, bar graphs and histograms. Finally, bivariate analysis was done on key aspects of the student nurse questionnaire i.e. competency related to hours of instruction and methods of instruction.

For the lecturer questionnaires themes and trends were identified. The total number of comments were placed into categories dealing with similar aspects of nursing education. A descriptive analysis of the comments was then done to identify what was being taught as well as what lecturers felt should be added. Bivariate analysis was also done between various lecturer and student nurse variables.

3.7. Ethical Considerations

3.7.1. Research Ethics

The Faculty of Health Sciences' Ethics Committee and Research Committee at the University of Cape Town prior to commencement of the study approved this study. Simple duplication of research done elsewhere may be considered unethical because it will not lead to new knowledge. Duplication of research is not justifiable therefore not ethical, whereas replication is justifiable if previous results are being questioned and is therefore ethical. This research was not a duplication of research.

Conflict of interest can occur if research is done for both degree and promotional purposes. This dual motive may be at odds causing a conflict of interest. This research was done purely for enhancement of knowledge and degree purposes.

There is an ethical obligation to feedback. The researcher will be giving feedback to all colleges and university departments that took part in the study once the research documents are completed and approved.

Ethical Reasoning

The Ethics committee will decide if the researcher is considering moral values (culture, religion and ideologies) when applying research. Ethical reasoning takes place whenever there is a reason to apply a moral justification for a particular research procedure. If a researcher decides to deceive participants, he/she needs to justify these actions as being essential to the research (Katzenellenbogen, Joubert, Karim 1997:Chapter 3).

Ethical Principles

The following four ethical principles were considered:-

- Respect for persons / Autonomy
- Beneficence
- Non-malevolence
- Justice

Principle of Respect

Firstly, individuals have a right to information that will allow them to make an autonomous decision. Secondly, individuals have a right to protection. This includes people under the influence of alcohol, those with a permanent intellectual inability and those with reduced autonomy (children, prisoners). The principle of autonomy is the main principle underlying the process of informed consent (Benatar 1986:170). To allow for autonomous consent 5 conditions need to be met:-

- the person must be competent to make the decision
- there must be disclosure of information
- there must be an understanding of the information
- any decision regarding consent or refusal must be voluntary
- a specific authorisation needs to be given by an individual

All these criteria have been addressed and met.

Informed consent was obtained from each nurse before his or her inclusion in the study. All students were over the age of 18 years. Students were informed of the details of the study and their right to choose to participate or refuse to participate, without prejudice before answering the questionnaire. The majorities of students freely consented to participate and were asked to note their consent on the questionnaire. Consent was anonymous to maintain confidentiality. Questionnaires were returned directly to the researcher to maintain anonymity and protect the individual's rights (Katzenellenbogen, Joubert, Karim 1997:Chapter 3).

Principle of Beneficence

This implies that the actions of the researcher are directed at benefiting the participants, a positive good should result from the research. On balance the research must do more good than harm. Participants offer time that may result in other obligations not being met. Results of a study may be detrimental to the participants. In order to protect the participants confidentiality must be maintained and where possible permission granted by institutional authority (Steere 1984:9).

For this reason permission to conduct the research in the colleges and university departments and to use the students and lecturers in the study was requested and granted by individual heads of colleges and nursing departments. The researcher also remained with the respondents and observed respondents carefully whilst they were completing the questionnaire and made herself available to deal with any problems arising as a result of the study. Respondents were offered whatever supports and advise they felt they needed.

It was felt that the colleges, university departments, students and lecturers would ultimately benefit from the research as feedback will be given to all colleges/universities involved with the study. All original work used in the study has been acknowledged to the best of the researcher's ability.

Principle of Non-malevolence

The researchers are obligated to do no harm to the participants (Steere 1984:10). No individual details were revealed to any other person. The researcher was available at all times to answer questions and offer assistance to anyone who needed it.

The Principle of Justice

This implies that people that all participants should be treated equally and fairly. Literature concerning substance abuse was offered to all participants. All colleges and university nursing departments will benefit equally from the research, they will all be offered a choice of whether they would like feedback on the research and assistance with their substance abuse curriculum content. (Katzellenbogen, Joubert and Karim 1997:32-34

CHAPTER 4

RESULTS

4.0. Introduction This chapter will present information obtained about student nurses and their training, attitudes and knowledge as well as information relating to lecturers and substance abuse curricula in the Western Cape. The results of this study will be presented in two parts. The student nurse data will be presented first with the lecturer data following.

4.1 Student Nurse Questionnaire

A total of 344 questionnaires were distributed at six nursing colleges and universities. The questionnaire was divided into 5 sections. Section 1 dealt with demographic information, Section 2 asked for further information from those nurses that had received substance abuse education during their training. Questions in Section 3 dealt with those nurses that had not received substance abuse education during their training. Section 4 looked at what clinical experience nurses had of substance abuse during their training. Finally, Section 5 looked at nurses' attitudes towards and knowledge of substance abuse. The response rate was 95.9 % with 331 student nurses completing the questionnaires, 6 students declined to participate and 9 students were absent on the day.

4.1.1 Section 1 - Demographic Profile of Sample (n=331)

In **Section 1(Question 1 – 9)** the analysis of demographic information indicated that 37 (11.2%) of the sample were studying towards a degree in nursing and 294 (88.8%) were studying towards a diploma in nursing. Ages ranged from 20 - 43 years, the mean age of students being 24 years and the median age 23 years. This would be considered a normal distribution as students generally enter nursing straight from Grade 12 at the age of 18years. There were 306 (92.4%) female students and 25 (7.6%) male students. These figures are consistent with national statistics of 93.8% qualified female nurses and 6.2% male (South African Nursing Council 1999:21).

The first language of 207 (62.5%) students was Afrikaans, with 96 (29.0%) English speaking and Tsonga, Xhosa and Zulu making up the remaining 28 (8.5%). 70(21.0%) of the respondents smoked between 2 and 30 cigarettes daily. 80 (24.2%) respondents consumed alcohol regularly, with 50 (15.1%) consuming alcohol occasionally and the remainder 201 (60.7%) not consuming alcohol at all. 51 (15.5 %) took non-prescription drugs with the remaining 279 (84.5%) not taking any substances.

4.1.2 Section 2 - Formal Training (Appendix D)

In **Section 2 (Question 10 – 14)** questions aimed at identifying substance abuse input throughout training were answered by all (331) of the respondents. Most of the nurses 307 (92.7%) responded that they had received information on substance abuse during their training and 24 (7.3%) did not recall receiving any information on substance abuse. The majority of the 307 positive respondents 181(58.8%), received information on substance abuse in the second year, with only 20 (6.8%) receiving training throughout. The remaining 106 (34.7%) received training in first, third or fourth year. The detailed information is presented in Table 4.1.

TABLE 4.1- Year in which training was first received (n=307)

Year	Number	%
1	88	28.6
2	181	58.8
3	6	1.9
4	12	3.9
All	20	6.8

Table 4.2 gives details on substance abuse areas covered during nurse training

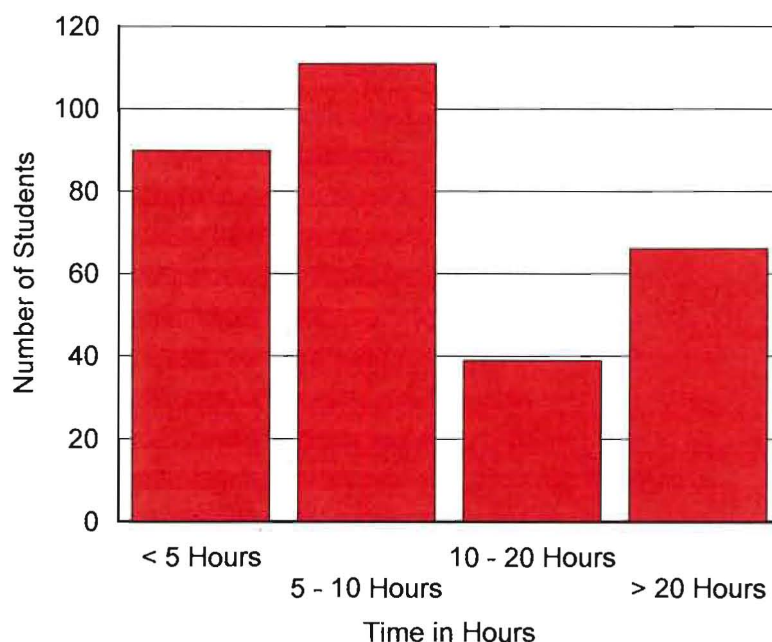
TABLE 4.2 - Areas covered in substance abuse (n=307)

Area	Number	%
Problems related to substance abuse	123	39.9
Types of substances	101	32.8
Substance abuse in general	87	28.2
Prevention and Education	99	32.1
Counseling and referrals	63	20.5
Intervention	57	18.5
At risk individuals	14	4.6
All of the above	171	55.5

* *Respondents could give more than one response*

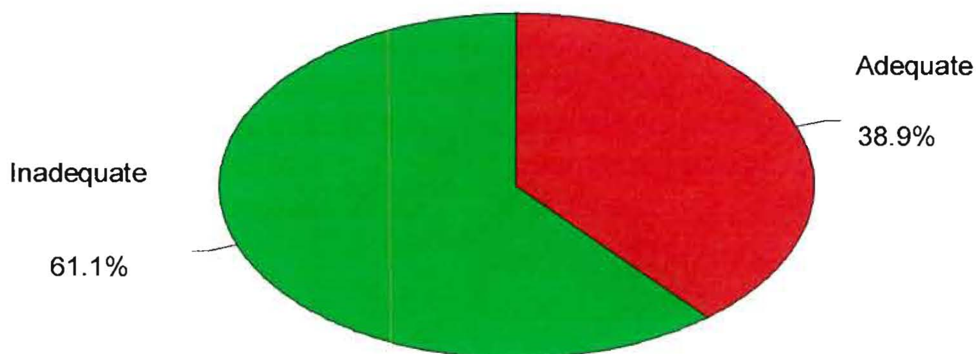
The total amount of time devoted to nursing instruction on substance abuse throughout the four year training programme, as recalled by the students receiving it, ranged from less than five hours (90 nurses, 29.5%) to more than twenty hours(66 nurses, 21.6%). Details are shown in figure 4.1. The largest group stated 5-10 hours (111 nurses, 36.2%) as the norm, with the remaining (39 nurses, 12.7%) stating 10 - 20 hours.

FIGURE 4.1 - Details on hours of instruction (n=306)



For details on the contingency question enquiring as to whether or not enough time was allocated see Figure 4.2.

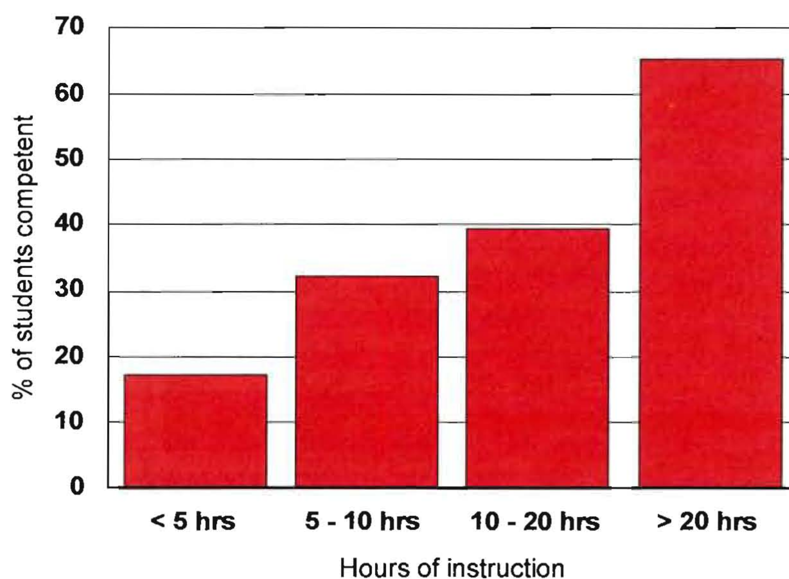
FIGURE 4.2 - Time spent on substance abuse (n=306)



Bivariate Analysis

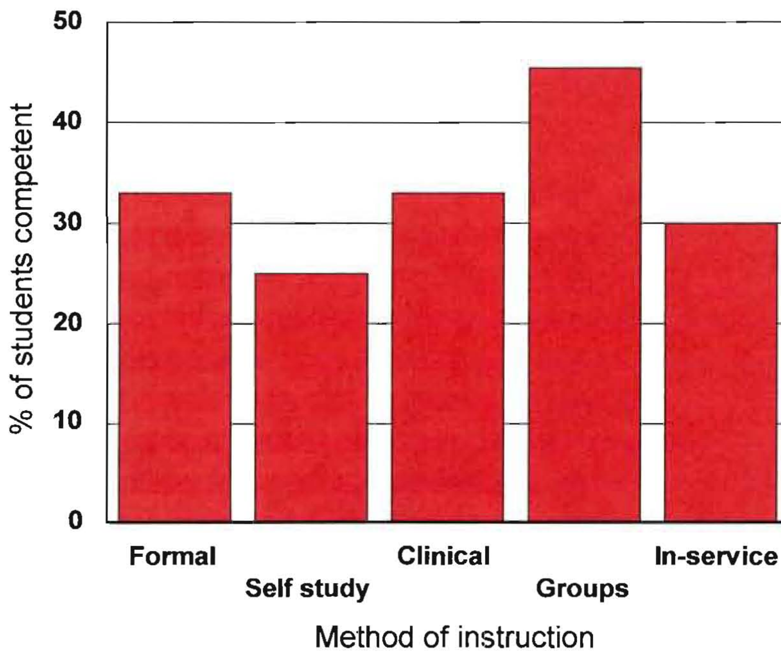
Of those students receiving 20 hours or more of substance abuse training, 65.2% felt competent compared to 17.2% of students that received 5 hours or less. There was a significant association between hours of instruction and competency of students (*Chi-square* = 38.4 $df = 3$; $p < 0.001$). Figure 4.3 gives further details.

FIGURE 4.3 - Competency related to hours of instruction



In figure 4.4, students identified different methods of instruction. It appeared that students taking part in group interaction felt most competent to deal with substance abuse however, there was no significant association between method of instruction and competency (*Chi-squared* = 4.93 *df* = 4; *p* = 0.294).

FIGURE 4.4 – Competency related to method of instruction



Self study refers to readings recommended to nurses by nursing lecturers. In-service refers to on duty formal education, groups refers to group work by nurses.

Students were asked to identify the main methods of learning about substance abuse. Table 4.3 provides details.

TABLE 4.3 - Methods of learning (n=307)

Method of learning	Number	%
Formal lectures	203	65.9
Group interaction	80	26.4
Clinical experience	9	2.9
Recommended reading/workbooks	8	2.6
In Service	5	1.6
Other	2	0.6
Total	307	100

In response to the contingency question as to whether or not this information had been useful (8, (2.6%) nurses did not answer the question. The majority (268 nurses, 87%) found the information received to be useful.

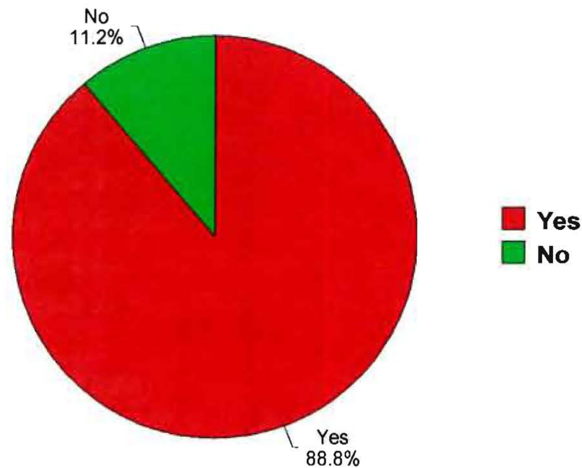
In order to identify if nurses were being educated according to their needs, they were asked to identify one area of information they found the most helpful when dealing with patients. The largest number 144 nurses (47.7%) identified health education as being the most useful with information on referrals being the least useful. Details are given in table 4.4.

TABLE 4.4 - Most useful information (n=299)

Information	Number	%
Health education	144	47.7
Counseling	49	16.4
Prevention	37	12.9
Management	24	8.2
Problems	18	5.9
People at Risk	14	4.6
Referrals	13	4.3
Total	299	100

Figure 4.5 gives information on whether or not nurses would have required more information.

FIGURE 4.5 - Nurses need for more information (n=307)



4.1.3. Section 3 - No Previous Training

Section 3 (Question 15 – 19) dealt with those students who did not recall receiving information on substance abuse. 21 nurses (86%) felt that information would have been useful, 3 nurses (14%) did not feel that information would have been useful. 21nurses (88%) stated that they would like to receive information.

Table 4.5 provides details in which areas the respondents would like to receive information. (Students could choose more than one answer)

TABLE 4.5 - Areas of information requested by nurses (n=24)

Area	Number	%
Prevention and Education	7	30.4
Counseling and referrals	7	30.4
Problems related to substance abuse	5	21.7
Intervention	4	17.4
At risk individuals	3	13.0
Substance abuse in general	3	13.0
Types of Substance	1	4.3
All of the above	15	65.2

The majority of these respondents identified second year 11 nurses (47.8%) as the year in which they would like to receive information. See table 4.6 for details.

TABLE 4.6 - Ideal year of instruction as identified by students (n=23)

Year	Number	%
1	4	17.3
2	11	47.8
3	2	8.7
4	6	26.2
Total	23	100.0

The preferred method for receiving information was formal 22 nurses(37.0%) with recommended reading being the least favored. See table 4.7 for details.

TABLE 4.7 - Preferred method of instruction (n=23)

Method of instruction	Number	%
Formal lectures	22	37.0
Clinical experience	8	33.0
In Service	4	17.5
Recommended reading/workbooks	2	8.2
Other	1	4.3

4.1.4. Section 4 - Clinical Experience (n=331)

Section 4 (Question 20 – 22) of the questionnaire dealt with clinical experience of nurses related to substance abuse. The majority of nurses (234, 70.9%) felt that the whole multidisciplinary team should be responsible for the management of substance abusing patients. One respondent did not answer this question. More than one answer could be given. Suggestions included under "other" were community, church, family.

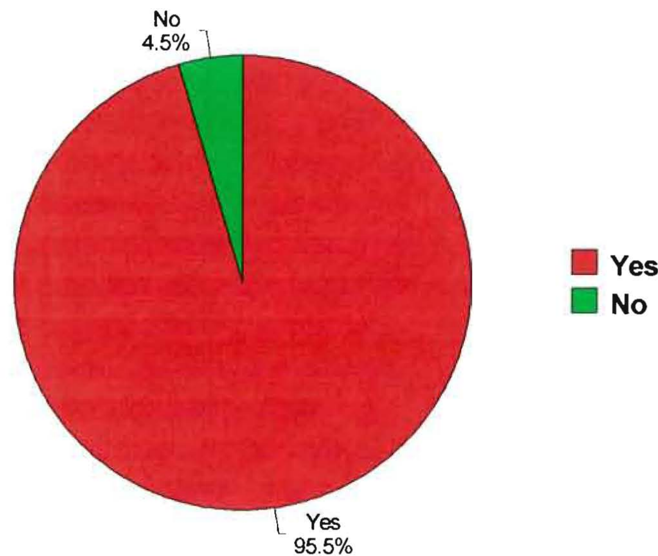
See table 4.8 for more detailed information.

TABLE 4.8 - Professionals responsible for management the management of substance abuse (n=330)

Who is responsible for substance abuse management?	Number	%
Substance abuse specialists	56	17.0
Specially trained nurses	40	12.1
Social Workers	39	11.8
Psychiatric nurses	38	11.5
Primary health care nurses	37	11.2
All nurses	31	9.4
Doctors	23	7.0
Others	11	3.3
All of the above	234	70.9

By the final year of nursing a large number of respondents 318 nurses (95.5%) had clinical contact with substance abusing patients. (Figure 4.6)

FIGURE 4.6 - Nurses coming into contact with substance abusing patients (n=331)



Nurses were exposed to substance abusing patients in all areas. In table 4.9, it can be seen that the majority of nurses (214, 66.3%) reported having had contact with substance abusers in the community setting . More than one response was possible.

TABLE 4.9- Clinical areas of exposure to substance abuse patients (n=331)

Area	Number	%
Community	214	66.3
General Medical	179	55.4
Psychiatry	173	53.6
Clinics	138	42.7
Midwifery	97	30.0
Surgical	87	26.9
Home	85	26.3
Schools	67	20.7

The majority of respondents (212 nurses, 65%) also stated that they did not feel competent to deal with patients abusing substances. Various reasons were given but the most common reason was identified as lack of skill, (92 nurses, 43.2%) followed by lack of knowledge (65 nurses, 30.5).

Details are shown in tables 4.10 and 4.11.

TABLE 4.10 - Reasons for students not feeling competent (n=212)

Reason for not feeling competent	Number	%
Lack of skill	92	43.2
Lack of knowledge	65	30.5
Difficult patient	33	15.5
Not enough time	12	5.6
No support system to refer to	11	5.2

TABLE 4.11- Reasons for students feeling competent (n=119)

Reason for feeling competent	Number	%
Up to date knowledge	43	38.4
Previous experience	36	32.1
Good support structure in place for referral	22	19.6
Sufficient skill	7	6.3
Extra time available	4	3.6

4.1.5. Section 5 - Attitudes and Knowledge

Section 5 (4 point likert scale (1-17) and true/false questions (1-22)) deals with attitudes and knowledge of nurses towards substance abuse.

Attitudes (Appendix F)

Items testing attitudes are listed in Appendix F. Questions aimed specifically at measuring attitudes showed that 233 (70.54%) nurses scored over 50% in this section. The following were considered positive attributes in the questionnaire.

- Belief that substance abuse is treatable
- Non-stereotyping
- Non-judgmental
- Willingness to care for patients abusing substances

Assigning them 1-4 points, 4 points for what was considered a positive attitude and 1 for what was considered a negative attitude, scored responses. All statements on the questionnaire were considered positive, by the researcher. If a student scored between 50 and 100%, his/her attitude was considered to be on the positive. Nurses scoring less than 50% were considered to have a negative attitude. In other words, the higher the total score, the more positive the student's attitude was considered to be towards substance abusing patients.

Of note, only 136 (41%) nurses felt comfortable when dealing with substance abuse while 11 (3.3%) nurses felt totally comfortable. A large number of nurses, 275 (83%) agreed that not only irresponsible people abuse substances. 271 (82%) nurses stated that all patients should be treated equally regardless of the reason for admission.

74% of respondents, responded that substance abusing patients should be treated the same as any other patient and 271 (81.7%) nurses agreed that substance abusers needed the same help as any other patient. In contrast only 98 (29.6%) nurses felt that substance abusers could not be held responsible for their problems as substance abuse was an illness, while 86 (26.1%) nurses did not feel that stress entitled individuals to abuse substances. The majority of nurses felt that counseling skills were needed in order to deal with substance abusing patients, but only 36 (11%) nurses felt comfortable when dealing with these patients.

Knowledge (Appendix G)

This section tested 5 key areas of knowledge i.e. "dagga", Mandrax, over-the-counter-medication, alcohol and smoking. These questions, testing knowledge on pharmacological actions of abused substances are listed in Appendix G. A large number of nurses 139 (42.12%) answered 'don't know' in this section, with 180 (54.32 %) respondents answering correctly. The least number of questions answered correctly by students, 142 (43.42%), was on Mandrax. The area with the largest number of correct answers was smoking 231 (69.87%) followed by over-the-counter and prescription drugs 185 (56%) and 169 (51%) questions were answered correctly on alcohol.

A large number, 215(65%) nurses answered 'don't know' to questions on Mandrax and "dagga", two of the most commonly abused substances in the Western Cape; 237 (71.5%) nurses answered 'don't know' to "dagga" being a stimulant; 213 (64.4%) nurses answered 'don't know' to "dagga" heightening concentration; 273 (82.5%) nurses answered 'don't know' to Mandrax being a central nervous system stimulant; 218 (66%) nurses answered 'don't know' to Mandrax being a depressant. Student knowledge of the pharmacological properties of substances appeared to be inadequate.

In the alcohol section, 51% of students answered all the questions correctly. The area on smoking had the highest number of correct answers i.e. 231 (69.8%) nurses, which could be due to the fact that 262 (79.2%) nurses recognised it as substance abuse. A small percentage of individual nurses used substances i.e. 70 (21%) nurses smoked; 80 (24%) nurses consumed alcohol and 51 (15.5%) nurses took non-prescription drugs. This data is reflected in nurses attitudes towards substance abuse i.e. (74.6%) of nurses strongly agreed that smoking was harmful.

The above data is shown in table 4.12.

TABLE 4.12 – Correct Knowledge Scores

Topic	% Score
Smoking	69.9
Over-the-counter/prescription	56.2
Alcohol	51.0
"Dagga"	50.7
Mandrax	43.4

4.2. Lecturer's Questionnaire (Appendix H)

4.2.1. Demographic Profile of Sample

Twelve questionnaires were distributed at six nursing colleges and universities. Two questionnaires were distributed at each institution, 10 questionnaires were completed and returned, giving a response rate of 83 %. Two questionnaires were not returned from two separate institutions. All respondents were women. Lecturers' experience ranged from 2.5 years to 12.0 years with a mean of 8.5 years. The respondents taught mainly second, third and fourth year students. The following departments were represented in the study i.e. Community Nursing Science, Psychiatric Nursing Science, Health, Social Science, Nursing Science, Child Nursing, Midwifery.

Academic qualifications of lecturers

Educational qualifications of respondents were as follows: - all lecturers had the basic qualifications of general nursing and community nursing, and 9 (90%) had midwifery and/or psychiatric nursing qualifications. All lecturers had some additional qualifications as follows: - 7 (70%) had education qualifications, 2 (20%) administration qualifications and 1 (10%) a paediatric nursing qualification. Five (50%) respondents had no experience of implementing substance abuse in the curriculum, all respondents felt comfortable with teaching substance abuse, which they taught, where required. All respondents expressed an interest in updating their

knowledge and would be willing to attend courses, but only five (50%) of respondents felt that they would be encouraged to do so by their employers.

4.2.2. Formal Training

Curriculum content and the way in which substance abuse education was addressed in the curriculum, was looked at. In particular, the questionnaire attempted to establish if educators attached importance to substance abuse education.

When asked how curriculum content was decided, on 10 (100%) educators responded that a curriculum committee made content decisions with 4 (40%) educators stating that current trends or society needs were also taken into account. Nine (90%) respondents identified the curriculum committee as the body that decided when substance abuse should be introduced. One respondent stated that substance abuse was introduced as a result of a student lead.

A range of 6 - 74 hours was allocated to substance abuse training with a mean of 20 hours being taught. Alcohol received the most attention with, solvents and drugs receiving minimal input. Six (60%) respondents felt that enough time was spent on substance abuse, with 4 (40%) noting that not enough time was spent on substance abuse. Eight (80%) of the lecturers stated that the allocated amount of time was governed by the curriculum.

The researcher attempted to group answers on curriculum content into themes by taking the total number of comments related to current curricula and placing them into categories dealing with similar aspects of education. In this way, an attempt was made to ascertain if the needs of society were considered when deciding on curriculum content. Respondents were asked for their views on what was included in substance abuse education, as well as what they thought should be included. A thematic analysis was done in order to identify general areas that respondents felt should be included (Appendix H). The data was categorised into three general areas in an attempt to identify curriculum content throughout the 4 year programme.-

TABLE 4.13 Curriculum Content

Presently included	Should be added
General information	
Predisposing factors	Self knowledge of attitudes
Substance abuse problem	Identification of problem behaviour
Types of substance abuse	Principles of the disease
Assessment of at risk patients	Treatment
Differences between abuse/dependency	Alcoholism
Substance related disorders	
Organic brain disorders	
Drug related psychosis	
Professional abuse	
Community	
Epidemiology	Alternate lifestyle
Screening	Confrontational issues
Prevention	Coping strategies
Health education/promotion	Use of leisure time
Detoxification	
Community resources	
Psycho-social	
Social issues	Resources and available facilities
Psychological issues	Effects of abuse on individuals
Counseling skills	Effects of abuse on the environment
Physical and psychosocial dynamics	
Rehabilitation	

It appears from the above information that respondent's felt more not less general information should be given on the affects of substance abuse. What did emerge from the data was that all respondents felt that substance abuse should be covered in the basic programme to a lesser or greater degree. A common theme of integration was evident throughout all the questionnaires, as evidenced by the following comments: -

‘ Integrated if it plays a role in a certain area.’

‘ Integrated into syllabus.’

‘ Must be taught by all departments.'

‘ More emphasis on integration in various disciplines.’

‘ Only dealt with as a minor problem when dealing with liver failure.’

‘ Covered in a theme area when dealing with children at risk, street children.’

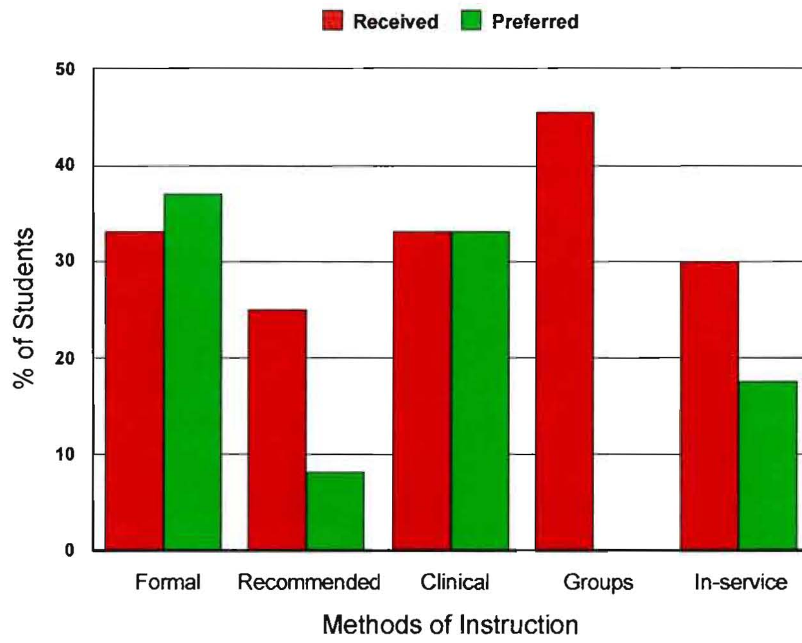
Rogers (1970) believed that more advanced levels of understanding and application should follow the knowledge base, enabling nurses to care creatively for patients. In order to assess if this was being done respondents were asked how nurses were taught to deal with substance abuse when they were made aware of a problem unrelated to the reason for admission or when data on admission pointed to substance abuse problem unrelated to the diagnosis. Four (40%) educators taught students to ***‘refer or report’*** when admission data pointed to substance abuse 2 (20%) educators were unsure what was taught, the remaining four respondents did not comment. When respondents were asked how learning was assessed, 3 (30%) stated by assignment, 5 (50%) theoretically, 1(10%) practically and 1 (10%) as part of a theme.

Curriculum content in the case of 8 (80%) educators covered the following aspects of substance abuse: - types, general information, problems related to substance abuse, intervention, education, referral, counseling and at risk individuals. Five (50%) respondents stated that substance abuse was integrated into all subjects, with the remainder not being sure.

4.3. Bivariate Analysis

In figure 4.7 a comparison was made between how students perceived receiving information and how they would have preferred to receive information.

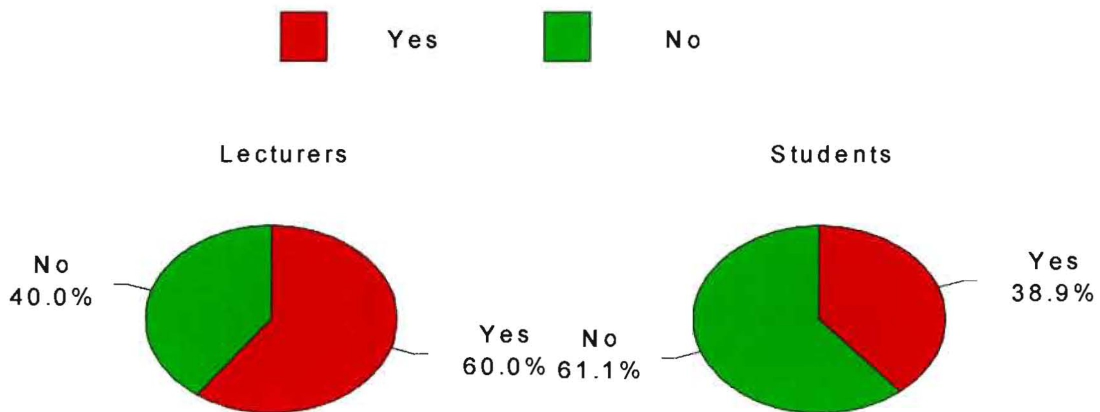
FIGURE 4.7 – Comparison of Methods of Instruction



* None of the students identified group activity as a preferred method of instruction.

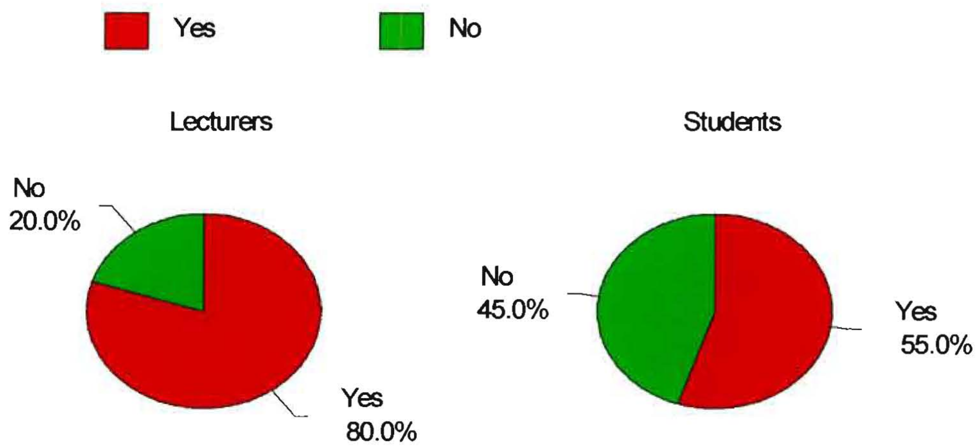
Both students and lecturers were asked if they felt that enough information had been received or given in the latter case. No significant association was found between students and lecturers with regard to whether enough time had been spent on substance abuse education (*Chi-squared* =1.81; p = 0.155). Information is given in figure 4.8.

FIGURE 4.8 – Adequacy of time spent on substance abuse – A Comparison of Lecturers and Students



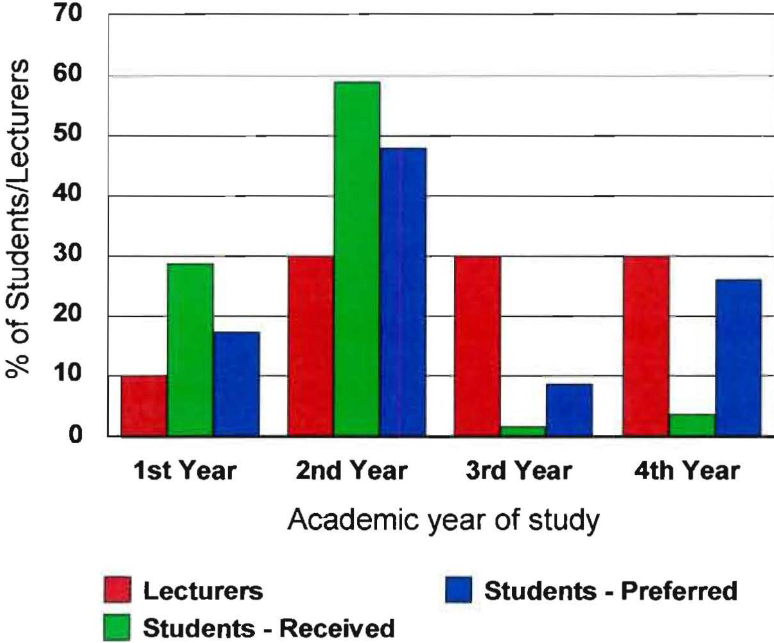
In figure 4.9 a comparison was made on whether lecturers and students felt information had been given on all areas of substance abuse. No significant association was found between students and lecturers with regard to substance abuse information received (*Chi-squared* = 2.47; p = 0.104.

FIGURE 4.9 – All areas of substance abuse covered
Comparison of Lecturers and Students



A comparison of when both students and lecturers identified substance abuse as first being introduced and when students would have preferred substance abuse to be introduced is made in figure 4.10.

FIGURE 4.10 – Timing of substance abuse introduction
A Comparison between Lecturers and Students



CHAPTER 5

FOCUS GROUP

'A focus group is defined as, bringing together a small group of people to participate in a carefully planned discussion on a defined topic, the aim of the technique being to make use of group interaction to produce data and insight.'
(Morgan 1988a:115).

5.0. Introduction

After analysing the data from the quantitative survey, it was decided that more in-depth information was needed on curriculum content, specifically with regard to how substance abuse was introduced into, and dealt with, in the basic nursing programme. In Merton's view (1987:562) a focus group interview creates the opportunity for the momentum of group interaction to open a wider area of responses that may not have been possible in an interview. Bellenger, Bernhardt and Goldsucker (1988:7) noted that, ' a focus group offers a means of obtaining in-depth information on a specific topic through a discussion group atmosphere. The procedure encourages a group to discuss feelings, attitudes and perceptions ...' A small focus group discussion was chosen because the researcher felt that more information would be gained from a spontaneous, semi-structured group setting, in addition to giving each participant more opportunity to participate, smaller groups allow the researcher to obtain more in depth information and clarification.

The primary aim in conducting the focus group was to interpret previously obtained quantitative data, which has been presented in the previous chapters. Although, according to Bellenger, Bernhardt and Goldsucker (1988:25), this is not one of the more frequent uses for focus groups, it is one that is useful in producing valuable information.

This chapter discusses the qualitative research design of a focus group and why a focus group was chosen as a means of verifying aspects of the lecturer quantitative data. The aims and objectives of the focus group as well as how the process was tested is also discussed. Data collection methods and methods of analysis are described.

5.1. Aims and Objectives

The aim of this focus group was to identify and understand more fully essential aspects of substance abuse education in the four-year basic nursing curriculum.

The objectives were:

1. To clarify the extent to which substance abuse is covered in the curriculum and who makes these decisions.
2. To assess if substance abuse is dealt with as a separate entity or generally included in teaching.
3. To elicit lecturers' knowledge and attitudes.

5.2. Study Type

A small focus group was chosen.

5.3. Study Population

Following a pilot study, a group composed of nursing lecturers was recruited. Lecturers were chosen as the researcher felt that they would be able to give more in-depth information on curriculum content than students would. The researcher was attempting to clarify issues on subject content and teaching methods, and felt that lecturers would have a better working knowledge and perspective of the entire 4-year curriculum. Only college staff, from the Western Cape, were used as two of the universities had declined to participate in the focus group for various reasons. College staff were asked if they would like the remaining university included in the focus group. The consensus was that the presence of this particular university would be seen as a 'watchdog'. This reaction could be due to the fact that the universities are responsible for externally moderating and examining the college diploma programme. As the researcher was attempting to clarify information already received, it was felt that the exclusion of university staff would not impact significantly on the results. It was decided to go ahead without the university staff as it was felt, by the researcher, that including only one university could alter the dynamics of the focus group.

Krueger (1998b:70) noted that in focus group research 'purposive' sampling is used, whereby the researcher selects participants based on the purpose of the study. As the research was clarifying data obtained from the lecturer questionnaire, the researcher specified criteria that should be met when identifying members of the nursing college

Only one group was used as specific information was being requested in order to understand previously obtained data. The advantage of having several groups is most evident during analysis when comparisons are made across groups as each individual group will have varying data (Morgan 1998b:82). In this case more in-depth

information was required on existing data and a comparison between groups was not considered necessary.

5.4.2. Advantages and Disadvantages of the Focus Group

Focus groups offer advantages and disadvantages. In order to be effective good facilities must be used as well as reliable tools. The main advantage of focus groups is that considerable group interaction occurs on a specific subject in a relatively short period of time (Ziervogel, Ahmed, Flisher, Robertson 1997:26). Bellenger, Berhardt and Goldsucker (1988:26) note that focus groups are easy to set up, difficult to moderate, and difficult to interpret, and are therefore easily misused. It is important that the group is well moderated and interpreted by a skilled moderator. It has been found that the success of a focus group is largely determined by the facilitator (Kline, Kline, Oken 1992:449). Another major benefit of a focus group interview is that the discussion structure allows the researcher to learn directly from a dynamic group. The participants were not forced into a way of thinking or making choices by the way a question was worded (Bellenger et al 1988:18), broader responses were elicited allowing for in depth discussion.

Morgan (1998b:73) notes that having fewer participants gives each participant more time to express their opinions, which matched this project goal of getting a more in-depth understanding of what the participants had to say. Morgan further states that the advantage of this method is that participants have a high level of involvement in the subject, and as a result contribute more. If participants are from a similar background and involved in the topic, smaller groups are not a disadvantage (Morgan 1998b:74).

The limitation of having only one group was overcome by the fact that data triangulation was used. Triangulation involves the combination of multiple methods in a study in an attempt to gain more accurate information (Ziervogel et al 1997:29). The two methods used were the focus group and a survey. The focus group questions were derived from information received in the survey and the answers were then compared. The focus group was used to clarify certain points and cross-check others in the questionnaires. In this way the meaning of the questionnaire data was clarified and more clearly understood.

5.4.3. Tools and Equipment

According to Krueger (1998c:72), the options for recording data are memory, notes, audiotape, videotape or real time-transcriptions and the researcher should choose whichever methods are preferred. The researcher chose to use both audiotapes and an assistant, who took notes and recorded relevant body language. Video recording was not used as it was thought to be unnecessary and may make the participants uncomfortable. The focus group was audio-recorded with the participant's consent, and was transcribed and analysed by the researcher with her assistant.

5.5. Steps Taken to Increase Validity and Reliability

Validity in qualitative research refers to 'gaining knowledge and understanding of the true nature, essence, meaning and characteristics of a particular phenomenon' (Deatrick and Faux 1991:216). The researcher must look at the larger context of the study from the perspective of the participants in order to determine validity (Krueger 1998b:68). Many factors can influence the validity about what is said i.e. race, age, gender, knowledge etc. of the moderator, a perception that the topic is threatening and the assurance that the information is confidential. Krueger (1998b:68) notes that these concerns need to be considered in the planning phase. Macun and Posel (1998:119) noted that while focus group data does not depend on quantitative data for its validity, it is useful if the data does correspond.

The following steps were taken to enhance validity.

- Data triangulation was used where survey data was compared to the focus group data. Morgan (1998a:83) noted that when you have only one focus group, triangulation could help you determine if the content of that discussion is consistent with information from other sources. As this focus group was set up to obtain more insight into previous results, conducting only one focus group was not regarded as a disadvantage.
- Member checking according to Morgan (1998a:86), is a technique whereby the researcher checks with the group that they have been correctly understood. This was carried out at the end of the focus group by briefly summarising what had been discussed in the focus group, and asking the group if they agreed with this summary.

In qualitative research experiences are expected to differ and as a result reliability is defined as the dependability of data. This refers to whether or not the overall findings of a study would be consistent if replicated with the same subjects (Krefting 1991:216). Marshall (1994:446-7) agrees that reliability in research is understood to refer to 'whether the same set of results would be produced if the research procedure were to be repeated'. Macun and Posel (1998:128) noted that in the case of focus groups 'to expect replicability is to miss the point - it is understood and accepted that each group interaction will be unique'.

Macun and Posel stated that the problem of reliability is best dealt with through triangulation, 'rather than relying on any one research method to replicate the data produced by another, we can more fruitfully treat each method as providing complementary data, the reliability of which rests in their coherence as an integrated answer to the research question'(1998:128). The survey data is validated by the focus group and as a result reliability should not pose a problem. In this study data was triangulated as well as the following steps being taken to enhance reliability.

- The focus group was conducted in a controlled area
- The focus group was audio-recorded to ensure accurate transcripts which increases reliability as memory is not being relied on
- Both the facilitator and assistant independently transcribed the information and results were compared before the transcript was finalised.
- A detailed description of the methodology is provided in order to assist further researchers.

The researcher requested volunteers from senior MSc.(Nursing) students at the University of Cape Town. In order to increase the validity of the quality of the information a pilot study was held in advance of the main study. Conducting this pilot focus group further checked process reliability and validity. A date was set for the pilot focus group on the 31 January 2000. Of the 4 confirmed volunteers, 3 arrived on the day.

An assistant had been recruited and trained to assist with the focus group. The assistant was a retired nursing lecturer as it was felt that an understanding of nursing terminology and curriculum was needed. The assistant was familiar with the research. Methods of focus group data capture were discussed with the assistant, as well as the role of the assistant. The assistant was happy to play a non-participatory role in the group, merely recording data. It was decided that as well as taking overall charge of the audio equipment the assistant would record relevant body language.

As the participants in were known to the researcher it was possible to experiment with seating as advocated by Macun and Posel (1998:70). Macun and Posel noted that "eye contact was the key to group communication" and that a "timid participant" should be placed opposite the moderator in order to maintain eye contact, thereby encouraging participation. Outspoken participants should be placed on either side of the moderator, discouraging eye contact. These seating arrangements were used during the pilot study but appeared to have no effect on group dynamics. The researcher introduced the study to the participants and explained the reasons for the focus group. Participants were informed about the taping and instructed on a format to be followed during the discussion. Participants were asked to sign consent. Confidentiality and voluntary participation was emphasised to ensure that individual rights were not infringed.

The introductory question was introduced and tested in order to make sure that it was understood. Once the focus group had ended the process was critically analysed by the participants who were asked to comment on how they felt about the process. The process was discussed and amendments suggested. It was generally felt that the seating arrangement had not affected the dynamics of the group. The facilitator and assistant transcribed the focus group separately. A number of changes were made to the process according to suggestions made by the participants. In summary it was felt by the researcher that the accepted protocol had been followed in order to ensure validity and trustworthiness of results. The pilot study served to validate the focus group process.

5.6.1. The Venue

The principal of the college was requested to provide a suitable venue and the following guidelines were stipulated:

- A quiet room with as little disturbance as possible.
- Seating for 8 with a table or tables around which the discussion could take place.

Unfortunately the college has a public address system throughout the building that cannot be switched off. This resulted in interruptions, but did not appear to affect the group as they are used to the constant interruptions.

5.6.2. The Process

One focus group was held which lasted approximately 50 minutes. The group took place in a reasonably quiet room and was facilitated by the researcher and an assistant. Participants were welcomed to the venue by the researcher and her assistant and invited to join them for refreshments. As suggested by Krueger and King (1998:60), the strategy was to put participants at ease by presenting a friendly, relaxed atmosphere, in order to set the tone for the discussion. The researcher acted as the focus group moderator as it was felt that she was the most competent to conduct the group, due to the fact that she was familiar with the research and had, had some training in running a focus group.

On arrival, participants were given a consent form, with a brief description of the study to read **(Appendix I)**. Participants were requested to wear a numbered tag. Once all participants were present and had helped themselves to tea and cake they were asked to take a seat. The moderator and assistant had allocated seats, as the recording equipment had been placed nearby, but participants were allowed to choose their own seats as it was found in the pilot study that specific seating made little difference to the group dynamics. This was discussed on page 91.

Once all participants were settled, the moderator formally welcomed the group by thanking participants for coming and introducing herself and her assistant. The topic was briefly introduced and the reason for doing a focus group was discussed. Participants were assured that the focus group would remain confidential and were requested not to repeat anything that was said in the group. Participants were

requested to wear the number tag, as this would assist the moderator during the discussion. It was explained that the assistant would not be taking part in the discussion but would be taking notes.

In order to maintain accuracy the focus group was recorded with two recorders, participants were asked if there were any objections. There were none. The moderator's role as well as general guidelines of how the group would be run was stated. Participants were asked if they had any queries. Participants were asked to introduce themselves and briefly explain where they worked.

The moderator then posed the introductory question, ' *Let **us start with your giving me your views on whether substance abuse should be included in the basic curriculum.*** ' The researcher allowed participants to lead their own discussion only intervening if the group became silent or strayed from the topic of substance abuse training in nursing. The participants were comfortable with one another and an informative open discussion took place. The discussion was forthright and honest with all participants contributing. When no new information was offered and the participants became silent the moderator concluded the discussion by asking if anyone had any more to add. The discussion was summarised and participants asked for comments. The discussion group was concluded after 50 minutes.

5.7. Ethical Considerations

According to the guidelines for research involving human beings (Morgan 1998a: 88) participants are only at risk under the following conditions: -

- Anyone under the age of 18 years or anyone that has not given legal consent
- Any disclosure of the subject's responses outside the research that could reasonably put the subject at risk

Focus groups inevitably involve the sharing of information; as a result protecting the participant's privacy becomes an ethical concern. Morgan (1998a: 87) notes that most of the ethical issues in focus groups flow from relationships. Morgan (1998a: 87) further notes that the first step in protecting privacy is to restrict access to information that reveals the participant's identity. Further he notes that anonymity means that

there is no way to identify that the participants are. Few focus group studies offer true anonymity, and it is more common to promise confidentiality.

A different privacy issue concerns what the participants learn about each other. According to Morgan (1998a: 90), every interaction involves some degree of self-disclosure. Boundaries should be set by the moderator to prevent over disclosure of private information during a focus group.

5.8. Analysis of Data

Krueger (1998c:76) notes that the best person to analyse the focus group data is the moderator or assistant, as they have the advantage of having been present in the focus group, which makes the analysis easier and less time consuming. Krueger advocates self-transcribing as she feels that it improves analysis by helping the novice moderator become more intimately connected with the data. In transcribing, the researcher is looking for notable quotes and after listening, typing and reading, becomes familiar with the discussion. Traditionally, in focus group research, the moderator is also the analyst. Taking all the above into consideration the tapes were transcribed by the moderator (researcher).

According to Krueger (1998a: 44) transcript based analysis involves careful listening to the tape and the preparation of a transcript. The researcher chose to do the transcribing as it was felt that the transcription would be of more value if voice intonations and silences were heard while transcribing. Both the moderator and assistant separately transcribed the audiotape. The researcher listened to the tape and transcibed it herself. Once the researcher had completed the transcribing she again listened to the tape in order to note intonations and relevant silences. Once both tapes had been transcribed the researcher compared the two transcriptions with notes made by the assistant regarding non-verbal communication during the actual focus group. The researcher and assistant also discussed the focus group process in order to identify any problem areas.

The basic methodology used in the analysis of the qualitative data was described by Krueger (1998c:65). This method of analysis used accepted, systematic, steps of

identifying key points, followed by a comparison of results in order to identify patterns and themes.

Ten pages of typed transcript were obtained from the focus group discussion. A thematic analysis was carried out on the transcriptions, involving a line-by-line analysis of the transcript. The line-by-line analysis was used in order to help identify individual concepts, themes and categories. This was achieved by reading the transcripts in order to identify ideas, themes, comments and word choices. The transcript was then cut up into individual comments. Like comments were placed into categories. The researcher kept an original copy of the transcript nearby so that she could refer comments back to the original section in the transcript. This was to avoid analysing comments out of context. The data in each of the categories was then re-analysed and broken down into sub-categories. Once all comments were placed into categories an analysis was done on specific themes. Some categories were rearranged with sub-categories. These categories were reviewed several times to ensure that similar statements were placed into appropriate categories. A descriptive summary was then written on each category looking at similarities and differences.

During this process the researcher continually questioned emerging patterns by using data triangulation and referring back to the student nurse and lecturer survey data. Explanations of the survey data were looked for in the focus group data. Through this analytical process of data triangulation, the researcher established a linkage between the two sets of data. Conclusions were verified or confirmed in this way.

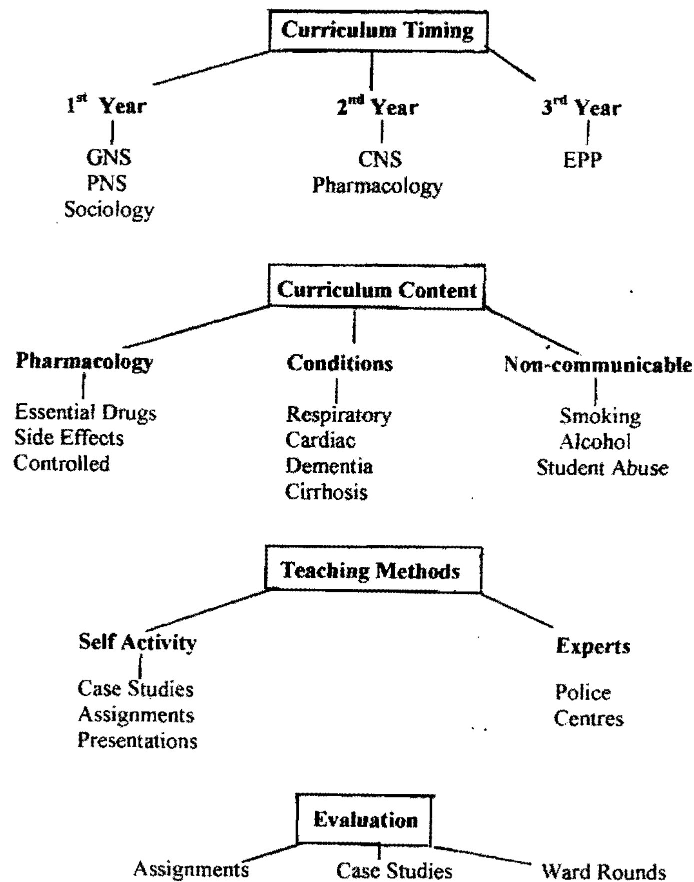
The transcript was revisited and analysed again 2 months later after a break. The same themes and categories emerged. Data triangulation was then used in order to gain a better understanding of the data obtained from the student nurse and lecturer questionnaires. This method was used to validate the findings of the focus group as well as to clarify any discrepancies. Statements were initially placed into the following main categories:

- Curriculum Timing
- Curriculum Content
- Teaching Methods

- Student Evaluation
- Student Abuse and integration were major sub categories

Figure 5.1 shows the categorization.

FIGURE 5.1. – Categorisation of Focus Group Data



Key:
GNS – General Nursing Science
PNS – Psychiatric Nursing Science
CNS – Community Nursing Science
EPP- Ethics and Professional Practice

5.9. Results

5.9.1. Sample

Six nurse/midwife lecturers took part in the focus group representing all departments (nursing science, ethos and professional practice, psychiatric nursing, social science, general community nursing, psychiatric community nursing, midwifery, biological science and pharmacology). Each of the four academic years of study was represented.

5.9.2. Curriculum Timing

The focus group question looked at when substance abuse was first introduced into the basic nursing programme, the curriculum content and the way in which substance abuse education is addressed in the basic nursing curriculum. When substance abuse was first introduced was not clearly defined.

The decision of when to introduce substance abuse tends to rest with the individual lecturer as the need arose. ***'I would start by saying that seeing as it's a very prevalent social problem especially in the Western Cape, it is essential that it is taught'.*** This appeared to be the general feeling of the group.

It was generally agreed that substance abuse was first 'touched on' in sociology and general nursing science in the first year of nursing. In first year psychiatric nursing science, substance abuse was discussed with emphasis on student abuse of alcohol and smoking. It was noted in the discussion that substance abuse among students is becoming a problem, which is why the information was aimed at the individual student.

In second year the student nurses were taught about the 'general workings and application of medicines' in pharmacology. This included prescription medicines i.e. schedule 1-7, as well as over the counter medication. Illegal substances were not taught at all, although students were 'informed about things like LSD'. In community nursing science the complications of substance abuse, mainly alcohol and smoking were discussed as part of non-communicable diseases in second year.

In third year substance abuse was discussed under Acts and Omissions in ethos and professional practice and in general nursing science substance abuse was mentioned as being the cause of respiratory or cardiac disease. A mention was made of the fact that ' a policeman or someone' gave a lecture to students on illegal substances in third year.

All lecturers expressed a concern that they did not 'overlap' [duplicate] information as 'time was short'. The general impression gained by the researcher was that lecturers were unaware of what was being taught outside their department, emphasising the lack of co-ordination and integration.

No specific clinical contact time was planned in substance abuse areas. ***'— in the past they used to work in the rehabilitation unit at Stikland [hospital]. Now unfortunately they [allocations] do not place them there anymore. That is a deficit.'***

5.9.3. Curriculum Content

Lecturers appear to be broadly influenced by the curriculum, but the final decision on lecture content appears to rest with the individual lecturer. The total amount of time devoted to nursing instruction on substance abuse was not clearly defined. It appeared that more concentrated instruction was given in social science. Certainly, all departments encourage students to be role models of a healthy lifestyle, but more specific information on substances appears to be lacking. When broken down by nursing course, the greatest amount of time is devoted to smoking and alcohol. The following quote, ***' but, my gut feeling is that except perhaps for psychology, the management of substance abuse is a dispassionate process. In other words it contributes to something, or it is a consequence of something, but it is not the focus of your teaching'*** tends to sum up how substance abuse is covered in the curriculum.

The general consensus was that substance abuse should be, and is covered in social science. It was felt that substance abuse should be taught in sociology and that this information should then be applied in other disciplines, ***'it is not information that should be put in a little box'.*** In sociology substance abuse is taught as part of social problems and social issues in the family and community.

In community referral resources, the essential drug list and paraffin ingestion is taught. The essential drug list consists of all generic drugs used in clinics. The patient is looked at as whole and all relevant problems treated. ***' Substance abuse is not covered in community[nursing] because it is taught in sociology'.***

If cirrhosis of the liver is covered a link would be drawn between alcohol abuse but treatment of the abuse would not be included in nursing science, cirrhosis is taught as a result of substance abuse. ***'—the factors of abuse may be covered but what we don't do as far as I know, is stress specifically with regard to treatment the alcohol or substance abuse —'*** In nursing science prescribed drugs are covered under each system, but illegal substances and substance abuse is not.

The medico legal implications that necessitate the control and taking of drugs and its affects on the patient are covered in Ethos and Professional Practice (EPP). ***' I can only speak for EPP but at the moment in general nursing science the focus of abuse might be cited as a contributing factor, but my perception is that it is not included.'***

The lack of available time in a full curriculum also appears to contribute to the way in which substance abuse education is approached by lecturers. ***' I agree that overlapping shouldn't occur, but they have taken it [substance abuse] out of the curriculum totally... there is so much work at the time that there is not really a slot where you can do substance abuse.'***

In most subjects, substance abuse was alluded to but no specific information was expected.

5.9.4. Methods of Instruction

The question of how substance abuse is taught, appears to depend on the individual lecturer. But, it generally appears to be self-study. The following comments are relevant to how substance abuse is taught:-

'— we also use discovery learning, say for instance a mother and child come in and there has been a paraffin abuse problem or accident, then the student must run with that case and write up a case study —'.

'— sometimes what I do, it depends on what I decide, last year I got them to write their autobiography up to adolescence and then asked them to share with one person the similarities and from that learn and compare with the textbook . We tell them what we expect of them and give them carte blanche to do the assignment and to find their own information, this way I learn of a lot of [other] services of which I am unawar.'

'— for sociology, most of the social problems [covered] are self activity where they need to present, but for the last couple of years or so all of the students may or may not come to the presentations. It is not necessarily tutorial staff that they get the information from.'

In some instances experts have been used to teach students about substance abuse. ***'It is not necessarily tutorial staff that they get information from.***

5.9.5. Evaluation of Students

There did not appear to be any single method of evaluation used, once again it depended on the individual lecturer, but it was generally agreed that substance abuse was not specifically evaluated except in some cases as part of an assignment. In fourth year if substance abuse became obvious on a ward round it was evaluated. ***' In 4th year for example you might do a patient round as an evaluation and then you definitely expect to pick up on you know medical, social history of the patient and the student to be able to identify problems.'***

5.9.6. Student Abuse

It became obvious during the focus group discussion that substance abuse was prevalent among student nurses. ***' Another major problem, maybe this is pre-empting the next statement, is abuse by student nurses themselves.' ' Ja[2], this is a major problem.'*** The general consensus of the group appeared to be that this was becoming a major problem. ***' There are lots of problems.' ' You can smell it.'***

[2] Ja: Afrikaans word for yes

There is an existing structure in place to deal with student substance abuse but students did not perceive that they had a problem and as a result were not making use of the facility. ***' I don't think it's a question of not being aware that there are services and that there is help. They do not perceive a problem.' ' Students only seem to seek help if they are found out or a friend has become concerned.'***

5.9.7. Integration

Integration of substance training was a recurring theme. However lecturers appear to have different interpretations of what integration is in relation to a curriculum. The general consensus appeared to be that if all departments mentioned substance abuse it was integrated. It was generally assumed that someone else was covering the facts on substance abuse and in order to prevent repetition no-one taught substance abuse specifically.

'... factors of abuse may be covered, what we don't do is stress specifically the abuse but rather we look at the medical condition ...'.

' The reason it is not specifically taught in community is because it is taught in sociology at an applied level, and students are supposed to know that they must take note.'

'In sociology we don't specifically teach substance abuse we look at the impact on the family.'

'This is done to keep it all integrated and prevent repetition.'

One of the participants noted that in her experience substance abuse is integrated as in community she generally found that students were able to build on existing knowledge. However, she went on to note that, ***' there are some students, no matter what you do they will put all the information into little boxes, and then others will draw it all together beautifully.'*** It was generally felt that if information was integrated depended very much on the student as noted in the comment, ***'... I notice a huge deficit in the knowledge that we expect them to have, it's been done and covered and we expect them transfer it to another discipline.'***

It can be seen from the following statement that some doubt on how well substance abuse was being integrated was evident.

'... I don't know from the student's point of view if it is integrated. We can see the whole quite well but I am not sure that the student actually experiences this.'

5.9.8. Conclusion

There was consensus that substance abuse is not covered in any depth, with the emphasis tending to be on the side effects and complications of substance abuse, as opposed to treatment or prevention of the abuse. Although, students are taught to take a full psycho-social history from a patient on admission to hospital in order to assist in diagnosing if the patient's signs and symptoms are drug induced or organic, participants recognised that they were not taught to deal with substance abuse as a primary problem.

The focus group also established that the manner in which substance abuse education is distributed among the various nursing departments suggests this information is not being approached in any co-ordinated, systematic fashion. No one appears to be responsible for making decisions on what would be integrated and how it would be integrated. Rather, information is interspersed throughout the coursework as it occurs. Such a scattered approach tends to make it difficult to establish what exactly has been taught, to whom it has been taught and who has responsibility for teaching it and how it has been evaluated.

For example, this method of instruction tends to make it more likely that certain information may be repeated whilst other areas may be ignored. It has been established that substance abuse content has a value and a place in all nursing departments however, there is a danger that failure to identify specific areas in which substance abuse is covered as a central issues, may allow essential in-depth teaching to slip through the cracks. It appears that with the curriculum in its present form, each lecturer may teach about substance abuse only on a superficial level , confident that the content will be treated in greater detail by 'somebody else'.

The intention of the focus group was that data obtained in the survey stage would inform the focus group questions as well as clarify certain issues. From the data

obtained the usefulness of the focus group becomes obvious. The focus group gave the researcher considerable insight into the nursing lecturers knowledge and attitudes as well as how substance abuse is dealt with in the curriculum. The researcher felt that the quality of information received from the focus group strengthened the research.

CHAPTER 6

ANALYSIS AND DISCUSSION

' For us who nurse, our nursing is the thing which, unless in it we are making progress every year, every month, every week, take my word for it, we are going back. The more experience gained, the more progress we can make... After all, all that our training can do for us is to teach us to train ourselves.'
(Florence Nightingale cited by Thompson 1988:199).

6.0. Introduction

The aim of this study was to look at how nurses were being educated in relation to substance abuse, in order to ascertain if recommendations could be made to improve nursing education programmes. The nursing institutions that took part in this study attract student nurses from communities across the Western Cape. The results of this survey are specific to the Western Cape and may not be representative of substance abuse content taught in nursing programmes in other parts of the country.

This survey design obtained self-reported information from the sample group by means of two questionnaires developed by the researcher, as well as a focus group. Combined data from the entire nurse training institutions was looked at, as comparison between institutions was not the aim of the study. This study evaluated student nurse education in substance abuse by investigating how nurses are educated, and what information they are given on substance abuse. Once the survey data had been analysed a need was identified for a focus group, composed of lecturing staff, in order to clarify differences between curriculum, student and lecturer data. It was decided to use lecturers only in the focus group as the major discrepancies were between curriculum content and lecturer data. It was decided to use nursing lecturers as an expert group in order to gain in depth information and insight into the curriculum. All differences were clarified and a further group was not needed. It was also not possible to conduct a focus group with the nurses that had taken part in the survey as they had already completed their training and were no longer available.

In this chapter the limitations of the methodology and analysis of the findings are discussed in relation to existing nurse education programmes.

6.1. Methodological Aspects

The survey aimed to gather information from fourth year nursing students and nurse lecturers in the Western Cape. The subsequent focus group gathered information from college lecturers in the Western Cape. The strength of the study was that due to the relatively small number of nurse education institutions and geographical distribution it was possible to include all colleges and universities training nurses in the Western Cape. In view of the targeted group it was unfortunate that one institution did not participate but in spite of this non-participation, all areas of the Cape Metropole were covered as well as a combination of universities and colleges.

Another strength was that it was possible to use all current fourth year students. The student sample was consistent with the national student profile. This has been discussed in Chapter 3.

The small number of male students (7.6%) is consistent with existing trends for South Africa. According to the South African Nursing Council Information Booklet (1999:21), male nurses make up 6.5% of nurses nationally.

The fact that all the lecturers who took part in the study were women did not appear to bias the study, as only two men out of a total complement of 47, were employed in the colleges and university departments at the time of the study. Since repeated reminders were given to staff to complete questionnaires and to volunteer for the focus group, it is reasonable to assume that a lack of interest contributed to the men not participating.

6.1.1. Student Questionnaire

The advantage of surveying the students whilst in class was the high return rate of questionnaires at 95%. The researcher did not feel that by doing the survey in the classroom students were forced into taking part in the study. This is fully discussed in Chapter 3.

Although the majority of students spoke Afrikaans as a first language (62.5%), they all stated that they were bilingual and did not appear to have a problem with understanding the questionnaire. The questionnaire could have been translated into Afrikaans and Xhosa but, as the entry requirement for acceptance into nurse training

in the Western Cape is a demonstrated proficiency in both English and Afrikaans (competency in matriculation qualifications) it was assumed that all students would be proficient in English. Tutorial staff involved with the students were also confident that nurses would be able to understand and complete a questionnaire in English, as lectures are given in both English and Afrikaans. The researcher was available to assist nurses with understanding questions at all times whilst the questionnaires were being completed. No problems were identified with regard to language proficiency. The pilot study had demonstrated that the questionnaire was reliable.

The researcher became aware of a printing error in one of the "knowledge" questions only after all questionnaires had been printed. The researcher was aware of this error before the administration of the first questionnaires, and consequently all groups of nurses were instructed to ignore this question. The removal of this question did not affect the scoring of the knowledge section, as the final score was adjusted accordingly.

Of the 331 students surveyed, 291(88%) students would have liked 'more information'. The question as asked did not measure any useful information as the term 'more information' was not clearly defined. It would have been of interest to know what students meant by 'more information', and what the individual student had done about improving his/her own knowledge.

In the question referring to contact with substance abusing patients it was not clear if students were referring to patients or perhaps to their own specific family or community. These terms could have been more clearly defined. In the focus group, nursing lecturers expressed concern about substance abuse among student nurses that would suggest that students were referring to all types of contact.

Questions aimed specifically at measuring attitudes showed that 70% of students scored over 50% in this section. An arbitrary score of over 50% was assigned to denote positive or negative attitudes, on a scale of 1-100%. The researcher realises that a questionnaire is not the ideal way of measuring nurses' attitudes and accepts that the data on attitudes could be subjective due to the type of questions asked. But, it was generally felt that the validity and reliability was in no way affected by this.

researcher is also aware that an attitude score above 50% does not necessarily denote a positive attitude, as attitudes are individual and changeable.

6.1.2. Lecturer Questionnaire

It was decided in the pilot study that an anonymous questionnaire would elicit more accurate information as lecturers had expressed concern at being interviewed. Unfortunately a number of questions were either ignored or only partly answered. The use of confidential coding of the questionnaires known only to the researcher, with an undertaking not to identify individuals, could have been helpful in allowing the researcher to return to the respondent, in order to clarify answers. This problem was one of the reasons that led to the need to conduct a focus group. It was of interest to note that nurse educators did not appear to be as concerned about confidentiality when participating in the focus group.

It was hoped that at least one lecturer from each year of study would be surveyed but unfortunately, this did not occur. This omission was another reason for doing the focus group.

It became apparent during analysis of the lecturer questionnaire that the majority of lecturers had very little knowledge about substance abuse. In hindsight, it might have been of value to administer the student knowledge and attitude questionnaire to lecturers in order to measure their knowledge and attitudes.

6.1.3.Focus Group

After analysing the data from the student nurse and lecturer questionnaire, a focus group was held in order to clarify inconsistencies on what had been taught as well as to discuss combined input from all departments and academic years. The focus group was intended to clarify how and when substance abuse was included in the curriculum as well what content was included. The researcher was satisfied that these questions were adequately answered in the focus group. The researcher also felt that the quality of information received from the focus group strengthened the research. The data received from the focus group appeared to be verified by the data received from the survey questionnaires.

The focus group was representative of the racial diversity of the colleges and universities. Neither of the two male lecturers volunteered to take part in the discussion.

The allocated venue was not ideal as the group was interrupted by a public address system on a number of occasions. It was felt that this did not affect the quality of the group as participants were in a familiar environment and did not appear to be affected by the interruptions. The problem arose when transcribing as the participants continued speaking throughout the announcements and it was sometimes difficult to hear the recording when transcribing.

The researcher was aware that a critical limitation of using only one focus group is that the information is specific to the characteristics and dynamics of a particular group and cannot be compared. This was not considered to be a limitation for this study as the aim of the focus group was to clarify information received from the student and lecturer survey not to detect trends.

The researcher was aware that she could interpret focus group information in a biased manner. In order to minimise bias a summary of what was discussed during the focus group was presented to the group and confirmed as an accurate record. In addition an assistant was present throughout the focus group discussion. The final transcription and interpretation of data was confirmed with the assistant. Data triangulation was also used to verify and check focus group information by referring back to the survey data. Through this analytical process a linkage was established between the two sets of data. Trustworthiness of survey information was also confirmed by the focus group.

The fact that 70% of participants were Afrikaans speaking did not appear to affect the discussion. It was established that all participants were comfortable speaking English, as long as they could resort to Afrikaans when attempting to explain a point. This did not appear to affect the quality of information obtained.

6.2. Implications of Findings

It appears from the findings in Chapter 4 and 5 that substance abuse education in basic nurse training programmes is inadequate. In this chapter these findings have been analysed using Rogers's conceptual framework as discussed in Chapter 2.

Findings will be discussed using key aspects of Rogers' model as follows: -

- Nursing is a knowledge based art
- The art of nursing is holistic
- Nursing is a theory based science
- Nursing is a learned profession
- Nurses need to think critically
- Knowledge empowers nurses

6.2.1. Nursing is a Knowledge Based Art

Applying the science of nursing to nursing practice is what is meant by the term, 'nursing is a knowledge based art'. According to Rogers the art of nursing is the imaginative and creative use of scientific knowledge in human service. Rogers defined education as transference of this body of scientific knowledge into practice. She envisaged 'man' as the central phenomenon of this knowledge with attention focused on the environment. Nursing according to Rogers exists to serve people with the nurse's overriding responsibility being to society (cited in Fitzpatrick and Whall 1996:264-270).

It becomes obvious from the survey data that substance abuse is a problem throughout the health system. Students identified substance abuse in all areas of contact, especially community (66.3%) and general medical wards (55.4%), both areas in which substance abuse would not necessarily be a primary diagnosis. There also appears to be a large incidence of substance abuse at home, in schools and in the community. It was also noted by the focus group that substance abuse amongst student nurses appear to be becoming more prevalent. Yet, with substance abuse affecting all areas of life, nurses (65%) state that they do not feel competent when

dealing with a patient with substance abuse problem. One of the main reasons given was lack of skill (43.2%) followed by lack of knowledge (30.5%).

Questions aimed at identifying attitudes towards substance abusing patients were generally answered positively, with 70% of nurses scoring more than 50%. Perhaps this positive finding can be attributed to the fact that substance abuse is prevalent in society and often accepted as the norm.
74% of nurses responded that substance-abusing patients should be treated in the same way as any other patient. 81% of nurses agreed that substance abusers needed the same help as any other patient. These findings may be due to nurses believing that substance abuse has a psychological as well as a physical, basis and that all patients should be treated holistically. Only 29% of nurses felt that substance abusers could not be held responsible for their problems as substance abuse was part of an illness, and 26% did not feel that stress entitled individuals to abuse substances.

Substance abuse biases are part of one's own socialisation within a unique environment, and identify instinctive behaviour. If these biases are unexamined, they can have a significant impact on the way a nurse will deal with a patient with a substance abuse problem. Rogers believed that the art of nursing is directly dependent on the nature and amount of scientific knowledge that the nurse brings to practice.

6.2.2. The Art of Nursing is Holistic

Rogers believed that nursing is unique because no other science studies the person as a whole. According to Rogers' model, nursing service flows from knowledge and nurses should at all time respond to the patient as a unified whole within a unique environment. Rogers notes that problem-orientated labels are inconsistent with her theory of holistic nursing as the individual cannot be separated from his/her unique environment. Disease conditions can no longer be considered entities on their own, but must be regarded as manifestations of the total pattern of the individual's interaction with his environment, and nurses must be educated accordingly.

Data from this study suggests that the education programmes are generally disease orientated i.e. not based on a nursing foundation. This also points to the fact that the

patient not being treated holistically but rather as a 'specific diagnosis'. Rogers believed that an individual should be seen in his entirety as part of a unique environment and that nurses should be taught to treat the individual as a whole, within a given environment. Rogers emphasised that nurses should respond holistically to patients by attempting to receive as many health related signs as possible. If nurses do not have a theoretical knowledge of health or substance abuse, they will be unable to recognise 'health related signs'. If the patient was being treated holistically, the substance abuse problem would be seen as part of the whole and treatment and goals would be set accordingly.

6.2.3. Nursing is a Theory Based Science

The theoretical basis of nursing as well as related theories that nurses must apply, within the context and understanding of their conceptual model, will be discussed. Rogers defined the science of nursing as an organised body of abstract knowledge arrived at by scientific research and logical analysis. The SANC sets regulations and standards for nurse training. Nurse training is based on scientific theory yet, this theory does not always appear to be taught in a systematic way.

Admittedly, it is not the purpose of a comprehensive nursing course to provide in-depth information on each individual health related issue. Using Rogers' framework the purpose of professional education should be to provide the knowledge and tools whereby an individual can become an artist in his field.

Valiga (cited by Pardue 1987:354) stated that, 'curricula and learning experiences are intended to help students develop a sound theoretical basis in nursing, refine the skills of critical thinking and decision making and develop the knowledge, attitudes and skills necessary to function as accountable members of the nursing profession.'

Broad principles must guide practice. Given Rogers' emphasis on nursing as a service for all people wherever they may be, a number of issues are raised about whether nurses are being educated in a way that will make this possible. Rogers' framework sees the nursing process as being dynamic, rather than a static approach to care with time limiting goals being set. The nursing process requires a nursing diagnosis to be made, and for this the nurse must have a clear understanding of his/her conceptual

framework. The nursing process has not been as well developed in South Africa as in other countries and the nursing diagnosis is often confused with medical diagnosis. This reflects a general lack of attention to nursing theories, and their utility.

Looking at related theories, it was found that those students that did identify receiving information on substance abuse, 61% did not feel that enough time had been spent on this subject. Of interest, and possibly of importance, to a student-centred approach to curriculum planning is how students interpret if 'enough time' has been spent on substance abuse education. It is difficult to assess how students perceive 'enough time' but it appears to be linked to a desire for more information.

The lecturer questionnaire data gave some useful and interesting results. Of concern is the fact that 60% of lecturers felt that enough time had been allocated to substance abuse as opposed to 39% of students. This begs the question, 'How was enough time measured?' Time is not a finite or accurate measurement of knowledge, nor does it define quality of information given. However, from the student survey data it became obvious that the amount of time spent on substance abuse education was directly related to the students' perceived competence.

Lack of Knowledge

Historically, nurses appear to have received little content in their curricula regarding substance abuse. When content has been included it has generally been focused on physiologic and toxic effects of substances. The lack of knowledge gained from nurse education programmes will often have an effect on nursing service. From data collected on student knowledge only 54% of students answered 50% or more of the questions correctly and 42% of nurses answered 'don't know' to questions on commonly abused substances. Although the results showed that students lacked knowledge in the substance abuse area, this lack of knowledge did not appear to affect their attitudes towards patients abusing substances. These findings have implications for nurse education with regard to curriculum content/development as well as appropriateness of information and care. For example certain questions revealed no recollection of what had been taught for example, "at risk" individuals and management of substance abuse problems. As this was widespread throughout all

questionnaires, it was believed that this reflected a gap in the actual training programme.

On analysis of this student data a considerable lack of scientific knowledge was demonstrated, specifically in the pharmacology of commonly abused substances. Lecturers need to be aware that if nurses are expected to be competent they need a scientific knowledge base from which to work. Lack of skill noted by the students suggests a lack of theoretical grounding, on which to build. As a result students have extremely limited knowledge to apply to their clinical practice.

It was apparent, that substance abuse is covered in all departments but this did not appear to occur in any organised manner or as an entity on its own. There did not appear to be an organised integration of subject matter or a common theme running through the curriculum. What further emerged was that substance abuse was dealt with differently by individual lecturers depending on the lecturers' interest in the subject as well as 'what time was available'. Consequently certain items were repeated and others ignored. Substance abuse tended to be mentioned as a contributing cause of illness or consequence of a psychosocial problem. The results of this study pointed to a lack of pharmacological knowledge in the substance abuse area. If nurses do not understand the basic concepts of pharmacology they cannot be expected to integrate that knowledge. Nurses will also not understand how abuse can contribute to ill health or social disharmony.

When asked how they would prefer to handle substance abuse in the syllabus none of the lecturers identified a particular educational theoretical base or method of learning. Pharmacological knowledge of harmful substances was not considered by lecturers to be of importance when educating nurses. 'At risk individuals' and 'management of substance abuse' was also not identified as a priority. Rather, lecturers looked at the effects of substance abuse on the family or the consequences of alcohol abuse and smoking, ignoring other substances. Rogers emphasised that nursing practice should be flexible, creative, individualized, socially oriented, compassionate and skillful. It was noted in the focus groups that nurses are expected to be able to differentiate between signs of abuse and organic brain disorders, yet, students are not taught the pharmacology of 'illicit or harmful' drugs making it difficult to detect abuse.

Educators must note that if students are not taught the basics (i.e. pharmacology) of a substance they would not have a scientific knowledge base on which to build.

Teaching Methods

If nursing is a learned profession it is surprising that only 70% of lecturers who answered the questionnaire stated that they had education qualifications. According to the nursing college statistics (Western Cape College of Nursing 1999:106) only 22 out of a total of 81 academic staff from the four colleges had education qualifications. Bearing in mind Rogers' characteristic of nursing as an organised body of knowledge, it is of concern that, substance abuse information is randomly introduced, with no set guidelines or organisation. From the survey data it appeared that a curriculum committee made all curriculum decisions. Yet, from the focus group discussion it appeared that the curriculum committee through consensus set broad objectives, with no one being held accountable for what was actually taught. It was not clear how decisions were made, on what basis they were made or what curriculum evaluation was done. No obvious evaluation or curriculum feedback mechanism was evident.

Various methods of teaching were identified in this study with self-study being the most common. It is of concern that substance abuse tends to be a subject that is generally allocated to self-study, indicating that it is not accorded much importance. Self-study does not appear to be clearly defined as students did not appear to consider self-study to be part of the learning process and did not use the opportunity to work creatively. As one of the lecturers noted, ' students tend to bunk presentations given by their peers and as a result do not think that a particular topic has been covered.' Data suggests that this 'self-study' is random and unsupervised

6.2.4. Nursing is a Learned Profession

Rogers defined nursing as a learned profession, with nursing practice flowing from scientific knowledge. She noted that a learned profession must claim a unique body of knowledge. Rogers emphasised the need for an organised body of knowledge specific to and unique to nursing, or there would be no need for nursing training. Kotze (1997:51) stated that professionals form part of the infrastructure of communities and with knowledge and skills should contribute to that community.

It is of further concern that lecturers in the survey study and focus group demonstrated a surprising lack of knowledge in the substance abuse area. When considering the definition of nursing as a learned profession it is clear that nurses have an obligation to deliver the best possible care to society. In order to do this nurses must have a strong theoretical base from which to work.

It is clear from the information received that nurses do not appear to be receiving a 'unique' body of knowledge but rather random information with regard to substance abuse. This lack of knowledge could have long-term implications for the quality and appropriateness of nursing care.

According to Carr, Saunders and Wilson (cited by Kotze 1997:51) nursing is a profession that supplies an essential service to society. Due to the essential nature of these service professions their functions are legislated for, and a professional body governs members of the professions. In the case of nurses this regulatory body is the SANC. The training and practice of nurses is guided by a scope of practice that is stipulated by the SANC. It must also be remembered that in South Africa, nurses have a life time registration. As a result registration is a static credential in a dynamic profession.

Colin Ralph (cited by Kotze 1997:54) emphasises that the regulation of a profession should be concerned with, 'improving standards of education for nurses, as well as standards of practice and care of patients. Regulation is concerned with the position of the nursing profession in society---, this regulation is at the very heart of the profession.' A one-time examination cannot be expected to reflect competency ten years later.

There is no doubt, taking the above definitions into account, that nursing is a profession but are nurses providing a professional service to society with regard to substance abuse? Are nursing regulations improving standards of education for nurses? If nurses are to fulfill their professional responsibility to society by preventing disease, restoring health and alleviating suffering it appears from the present data that there are gaps in their education. Nursing as a profession has an obligation to society

to deal as effectively as possible with all problems, including substance abuse. This does not appear to be happening.

6.2.5. Nurse Need to Think Critically

Paulo Freire refers to formal education as the 'banking' concept of education used to negate education and knowledge as a process of enquiry. Freire (1972:46) when referring to the disenfranchised noted that, " the 'banking' concept of education extends only as far as receiving, filing and storing deposits. But in the final analysis, it is men themselves who are filed away due to the lack of creativity, transformation and knowledge in this misguided system." He emphasises that knowledge can only be acquired through enquiry, an effort must be made to engage students in critical thinking, and this will not be achieved through the 'banking system' but through a questioning and learning environment (1972:46). There is little doubt that helping nurses to develop good critical thinking skills is one of educators' most important tasks.

Teaching methods need to encourage problem-solving abilities. A point to consider is if the present educational process allows for critical thinking to occur through an exchange of ideas or if the nursing process as taught is too prescriptive and thus discourages creative thinking. Rogers suggests that critical thinking is much broader than the nursing process alone. Rogers regarded the nursing process as a merely a tool for implementing nursing knowledge. There is no standard definition of critical thinking, however, some nurse educators may think that the use of the nursing process denotes critical thinking. Most importantly, Rogers stated that the purpose of nursing was to promote human betterment, wherever people are (Rogers 1970).

It would be useful to know what teaching and testing methods lecturers used. Were nurses asked to write essays, debate issues, challenge each other in small groups, outline reading assignments or watch videos. In other words were students encouraged to actively think and question?

Burnard and Chapman (1990:37) noted that education is a divergent process of developing knowledge, skills and values. They further noted that education should be the development of a critical ability and the means to become more flexible and

adaptable. Rogers (cited in Fawcett 1995:271) stated that nurses must understand that procedures and tools are merely adjuncts to nursing practice. The only way that they become meaningful is if knowledgeable nursing judgment is used in their selection. If nurses are to make a knowledgeable selection they need to know how to think critically.

Of major concern is the fact that of those nurses that were asked how they would like to receive information 37% requested formal input, with none requesting group interaction or creative learning methods. Findings did point to formal lectures as being the learning method most often used by lecturers. This could possibly explain why nurses requested formal input. However, this form of education does not necessarily produce a critical thinking nurse as envisaged by Rogers. If nurses are to think critically, learning requires educational methods beyond lectures and presentations. It also requires doing for example, discussion groups and experientially based methods, with video and playback facilities for critique

6.2.6. Knowledge Empowers Nurses

Rogers believed that knowledge empowers nurses. Tim Porter-O'Grady (cited by Kotze 1997:52) defines empowerment as, 'the recognition of power that is already present in a role and allowing it to be expressed.' The researcher believes that part of the problem in substance abuse today is due to the fact that so many health professionals neither understand nor place any value on substance abuse intervention.

The SANC in 1994 published a policy statement on the 'Rights of Nurses'. These rights were intended to enable nurses to provide safe and adequate nursing. Among these rights were the nurses right to goal directed in-service education relevant to her working situation. Another right was continuing professional education directly or indirectly related to the nurses' responsibilities (Kotze 1997:53). From the data received nurse lecturers appear to have been denied this right. Findings suggest that nurse lecturers are not encouraged to attend in-service or further education. It is of concern, that possibly due to lack of knowledge lecturers are disempowering nurses by teaching them to refer or report substance abuse problems.

Of the students that had been exposed to patients abusing substances, 70% felt that the multidisciplinary team should deal with substance abusers yet, nurses do not appear to consider themselves as capable members of this team. Instead of working as a member of a team, nurses are being taught to either refer or report substance abuse problems. The role of nurses as co-coordinators does not appear to be encouraged or taught.

Kotze (1997:57) noted that nurses are often undermined by the fact that they feel themselves to be at the mercy of forces beyond their control. The experience of finding themselves powerless within the system may be one of the reasons for apathy and a tendency to refer problems. Nurses may feel that even if they do identify substance abuse as a problem nothing can or will be done about it, as resources may be limited or non-existent. Nurses' knowledge may also be limited thus, making it pointless to identify a problem that cannot be dealt with due to lack of nursing competence or the necessary infrastructure. Another obstacle to care may be frustration due to the fact that nurses do not recognise that substance abuse is a chronic illness and that patients will keep returning. By teaching nurses to refer and report we are further disempowering them by not giving them sufficient knowledge to allow them to develop the necessary skills needed to nurse effectively.

The Combined Western Cape Nursing College Mission Statement states among other things that their aim is to, ***'Promote the development of skilled competent nurses through empowering them critically to take responsibility for their own learning to meet the needs of the community they serve within the principle of the primary health care philosophy'*** (Western Cape College 1997:12). If nursing institutions used Rogers' model while applying the above mission statement, many of the existing problems could be resolved. This study poses a significant challenge for nurse educators, as nursing education becomes part of higher education.

CHAPTER 7

RECOMMENDATIONS

'Applying research findings in nursing practice is perhaps the biggest challenge facing nursing research.' (Sheehan 1986)

7.0. Introduction

The aim of this study was to identify the specific needs of nurses' education in the area of substance abuse and to make recommendations with regard to incorporating substance abuse education into existing programmes. From the data obtained in this study it appears that in the Western Cape, an area with one of the highest rates of substance abuse in the country, substance abuse and its related problems have not been included in basic nursing education in any consistent manner. It must be noted, in fairness to those nursing colleges that took part in this study, that the data in this study was obtained before the nursing colleges amalgamated in January 2000. A new Combined Colleges Curriculum is now being used. However, it is a concern, that substance abuse has still not been allocated a place in the new curriculum (Western Cape College College of Nursing 1999).

For nurse educators, this study identified an area of education that appears to have been neglected i.e. substance abuse. Although some substance abuse is included in the curricula, the actual amount appears minimal. In view of the major impact of substance abuse in the Western Cape, it seems inappropriate that nurses are as inadequately prepared to deal with substance abuse as data indicates.

This chapter will make recommendations on how nursing education programmes can deal more effectively with substance abuse training as well as ways of encouraging professional development in order to expand the level of nursing educators' knowledge in the area of substance abuse. Recommendations will also be made with a view to expanding, integrating and strengthening substance abuse content in the curriculum. The use of nursing theory as a base for nursing practice will be encouraged, as will innovative teaching and critical thinking skills. Although the focus of this study is substance abuse, many of the recommendations refer to broad principles of nursing education.

7.1. Nursing Theory

Rogers maintained that nursing theory must be used as a basis for nursing education and practice. According to Mellish, Brink and Paton (19:16) nursing theories, "influence the type and organisation of data collected, the nursing diagnosis generated, and the goals and nursing intervention proposed." A theoretical framework should provide a general outline of curriculum content as well as how content will be taught and evaluated. General guidelines for all nursing intervention must be based on an agreed theoretical nursing model throughout all departments, if integration is to be achieved. The model chosen needs to be appropriate for the population as well as being congruent with the philosophy of the nursing department, providing a frame of reference for both practice and education. As all the nursing institutions taking part in this study serve the Western Cape, it would be possible to use the same model if it would fit in with the nursing philosophy of the individual nursing institutions. The curriculum needs to be based on a specific nursing model if it is to be effective. The SANC promotes a behavioural objective model that emphasises achievement of specific objectives. For substance abuse programmes to be effective they should be ongoing and occur within the context of daily living. Substance abuse information needs to be detailed and specific to the community.

Quality of training will depend on highlighting the principles of education and training, by adopting a holistic view when dealing with patients and paying specific attention to the historical, socio-economic, cultural and political context in which the patient lives.

The recommendations are as follows:

It is recommended that nursing programmes in the Western Cape be structured within a theoretical framework, in order to guide the content of the educational programme. A theory base needs to be chosen with a view to enabling nurses to use their skills at a community, as well as an individual patient, level. Nurses should be given guidelines on questions to ask to interpret relevant data and appropriate intervention when dealing with patients.

The researcher recommends Rogers' model, because it is logically structured, encouraging nurses to practice holistic nursing and to become critical thinkers.

Because Rogers's model is holistic, it can be applied to all subjects providing an interaction between health, education and nursing practice.

The researcher would advocate that an outcome-based educational model is used in nursing education. This model focuses on the attainment of selected outcomes in healthcare. The outcome based model also places emphasis on learning activities, which are planned in such a way as to make them relevant to both the learner and the community.

7.2. Curriculum Development

The resources needed to develop a curriculum in substance abuse are comparable to those of any other subject area: educators well versed in basic nursing science, research and service orientated programmes. Nurse education should reflect the extent of the existing problems within a specific community as well as the health needs of that community. However, the core curriculum should also allow for the fact that nurses will migrate and so will need to be prepared to deal with all health issues.

Nurse educators have a responsibility to provide skilled and knowledgeable nurses with the appropriate attitudes, to the community. Dealing effectively with substance abuse does not occur by chance but by a thorough and systematic development of appropriate knowledge, skills and attitudes. Information is the foundation of any effective intervention and the absence of information allows problems to grow. Problems that students experience in applying new ideas and concepts need to be discussed and resolved.

The recommendations are as follows:

If nursing in the Western Cape is to become a learned profession as advocated by Rogers, there are a number of areas that need to be considered when drawing up a nursing curriculum. Nurse educators should do a needs analysis within their community so that they are aware of the specific needs of the community when updating the curriculum.

An analysis of what knowledge educators' need and if providing this knowledge would encourage nurse educators to deal more effectively with substance abuse

education is recommended. In order to improve student knowledge of substance abuse, educators first need to identify why the incidence of specific curriculum content is so low.

Curriculum Committee

A curriculum committee is essential and should be seen as a vehicle to develop a dynamic curriculum, always bearing in mind that a curriculum is never complete and must be reviewed and refined constantly in order to meet new needs. The curriculum committee should aim to promote a broad framework on what should be taught and where as well as how formal evaluation will take place. The needs of the community and students should be assessed in order to establish if what is being taught in the curriculum is relevant. Those implementing the micro-curriculum should be accountable to the curriculum committee. However, responsibility for the micro-curriculum ultimately rests with the curriculum committee who should be responsible for integration throughout the curriculum.

Consultation and co-ordination between all departments is vital in order that the knowledge that nurses require is clearly defined and the teaching thereof is coordinated. This can only be achieved if all departments are represented on the curriculum committee. If the programme is to be integrated, each individual educator needs to understand how his/her section of the curriculum relates to others. When designing a curriculum, responsibility for specific subject areas needs to be clearly defined and allocated. Decisions about content need to be directly related to the health needs identified.

The recommendations are as follows:

A curriculum committee should be formally structured with guidelines laid down and regular meetings held. Terms of reference of the committee need to include accountability of lecturers as well as evaluation of students, lecturers and the micro-curriculum. The role of the committee needs to be clearly understood by all members of the committee. Each member of the committee needs to be aware of his or her responsibilities. Meetings need to be minuted and a feedback procedure developed in order to keep all educators informed.

Educators need to consult amongst themselves in order to formulate a curriculum that will work for them. The curriculum committee needs to ensure that individual educators are given a clear outline of what is expected in the micro curriculum. A clear programme of activities needs to be established and made available.

One of the functions of the curriculum committee should be to ensure that there is no overlapping of material. New material on substance abuse cannot simply be added to the curriculum.

Finally, the curriculum committee should establish if sufficient time has been allocated for the material to be taught in-depth, absorbed and understood by the students. Timetable planning needs to be linked to curriculum planning.

Curriculum Planning

The random way in which substance abuse is covered in the curriculum implies that educational institutions do not consider substance abuse to be of importance in nursing education. This needs to be rectified in the light of the data concerning substance abuse in the Western Cape. Planning should be constantly reviewed and evaluated in order to ascertain if course outcomes are being achieved. Curriculum planning should be responsive to the major challenges in the Western Cape.

Nursing theory is necessary as a framework when planning a curriculum, as it can assist in mapping how substance abuse will be covered throughout the nurses' training, as well as how it will be assessed. Nursing theory will also assist educators, when planning a curriculum, to understand more fully what they are doing and why For example how nurses will respond to a specific diagnosis that could include substance abuse. Nursing diagnosis appears to be poorly developed in South Africa but careful curriculum planning and nursing intervention linked to nursing theory should help to solve this problem.

The recommendations are as follows:

Rather than introducing a specific programme on substance abuse, organised integrated teaching should occur within the existing curriculum using a multi-disciplinary approach. Increasing multidisciplinary involvement serves to give a

comprehensive view of substance abuse, as well as stressing its pervasiveness throughout all areas of nursing.

Both formal and clinical training needs to focus on facilitating the ability of students to use knowledge effectively across a variety of clinical settings.

Curriculum planning should be based on reality and designed to achieve maximum learning resulting in quality care. This should be an integral part of the curriculum that demands careful attention to the way course content is constructed, sequenced and evaluated.

Subject Content

The curriculum content needs to be guided by the chosen conceptual framework. Data has shown that in an attempt to cover an expanding body of nursing knowledge, the content is delivered in a concentrated form, often through lectures, teaching aids, handouts and self-study. As a result, nurses do not have the opportunity to develop in-depth knowledge in any area. Nurses need to be encouraged to draw on related theory i.e. pharmacology, sociology, nursing science etc. when new information is introduced.

Curriculum content should be organised in such a way as to be understood by all who are responsible for training nurses. Curriculum content should be aimed at encouraging nurses to understand human experience and caring. A curriculum cannot be merely content driven, it needs to deal with what is currently happening within the community that is being served with caring as the central core of the curriculum. In curriculum decision making the patient must be the central focus of nursing, as advocated by Rogers, and the nurse should be encouraged to understand that link.

The recommendations are as follows:

It is recommended that education about substance abuse, which is currently being offered sporadically, becomes an integral part of basic nursing curricula. Nurses need to be taught to look at health problems within the context of the environment and understand how they affect the family and community as a whole. For example, in relation to alcohol, in General Nursing the nurse could look at the effects of alcohol

on the individual and family, in Midwifery the nurse could learn about the effects of alcohol on the foetus, in Paediatric Nursing the nurse could look at the effects of foetal alcohol syndrome on the child and family, in Community Nursing the student could look at the effects of alcohol on the family, community and workplace.

It is recommended that all nurses as part of basic education, are equipped with co-ordination, decision-making and management skills. The co-ordinator role of nurses needs to be encouraged. Nurses need to be better equipped if they are to identify problems and initiate team discussions. If nurses develop in these areas and feel professionally competent, they are more likely to participate in multi-disciplinary team decisions. There are also issues with regard to the process of nursing and development that should be addressed for example, clinical judgement, assertiveness, conflict resolution, and motivation and community paticipation.

Teaching Methods

Students need to be empowered to share control of the learning process. A careful analysis needs to be made of the teacher-student relationship if critical thinking is to become a required outcome of nursing education. In order to become critical thinkers nurses need a solid scientific base on which to build. Nurse education needs to lay a foundation of knowledge in order to allow nurses to promote critical thinking. To quote Bevis (1993:1101-1105), 'while information may be transmitted to the learner through various teaching methods, knowledge requires the active involvement of the learner with information.'

Educators should be encouraged to teach students in a way that will encourage them to develop the correct skills, knowledge and attitudes. Nurses need to understand that in order to think critically they must have a basic level of knowledge that can be applied in the clinical environment. Critical skills in problem solving need to be encouraged through innovative learning during basic training. Freire (1972:45) noted that, ' narration [lectures] merely encourages the student to memorise not to think.'

Educators should evaluate the effectiveness of teaching methods being used and not attempt to do too much in too little time. In an outcome-based model, educators

should provide guidelines on what information is required and how and where learners can obtain it. Learners also need to understand how they will be assessed.

Educators cannot be held responsible for all knowledge deficits but it is the responsibility of the educator to facilitate learning, not merely to list objectives that need to be achieved. It is the educators' responsibility to provide access to and guidance in, learning activities. Taba (cited in Kyriacos 1997:49) notes that, "the development of critical thinking requires teachers who themselves can think".

The training process and analysis should be interdependent and a programme of training should take place within a clearly defined theoretical framework. If quality education and training on substance abuse is to be given, educators should be up to date, knowledgeable, and skilled, as well as having the appropriate attitudes.

The recommendations are as follows:
A planned, supervised environment for learning and student growth is needed. Unsupervised and undirected 'self study' is not recommended. Self-study can be used to promote critical thinking but it must be organised, well structured with clear goals and above all supervised. Nurses need to understand that this is not 'free time' but active learning time. Learning material, for example, journals must be available with easy access to library facilities. Students should be stimulated and encouraged to grow and achieve their maximum potential in the art of nursing practice. Students should be encouraged to participate in learning by using problem-posing questions encouraging dialogue. Group discussions around conceptual ideas with students adding to and building on each other's comments, should also be encouraged.

Secondly, nurses need to be taught to think, to solve their own problems, and to be proactive when learning. Nurses need to be taught to reason, interpret and reflect in order to gain understanding. If nursing education does not teach with methods to stimulate critical thinking, how do nurses learn this skill and use it in practice to make daily complex decisions related to patient care? Students should be assisted in conceptualizing what they are doing, and learn to relate relevant theory to practice.

Thirdly, educators should use a variety of teaching/learning strategies to stimulate active, engaged learning activity. For example use case studies, experential learning and guided problem solving, ensuring access to expert supervision of students at all times. Substance abuse information can be integrated into case studies and students can be assigned to follow families attending clinics for a year. In this way they will gain a greater understanding of the sociological factors involved in a specific case history.

Continuous practical assessment as well as formal testing at the end of each section should be used in order to evaluate the effectiveness of education. Guided clinical practice and experential learning in addition to classroom learning is essential. If personal experience combined with memory of a situation is to assist in critical thinking it needs to be directed, that is reflective practice, otherwise it is randomly consigned to memory.

Student Evaluation

In an outcome based curriculum model continuous assessment must be planned for. The nursing theory used should dictate how nurses will be evaluated. If teaching methods are linked to theory and evaluation it should be possible to evaluate if learning has occurred.

Knowledge should be measured partly by formal evaluation, but also by the quality of care administered. Questions with answers that can be memorised are merely measuring memory, not understanding. If questions and assignments are set in a way that will encourage nurses to think, the nurse's ability to think critically can be measured. It is possible that nursing students are being taught critical thinking skills, but a tool to measure these skills specifically in the nursing environment does not appear to be available.

The recommendations are as follows:

Planned evaluation needs to be introduced and linked to a conceptual framework. Planned evaluation techniques must be incorporated into the curriculum to ensure that competency in all areas is tested. The wording of formal evaluation questions and assignments is crucial if critical thinking is to be measured.

Nurses' attitudes and values also need to be measured. Case studies and continuous assessment as well as mentoring could achieve this. By lecturers allocating substance abuse to be an area of self-study they are creating the impression that it is of little importance and a negative example is being set. Self-study can only be effective if there is structured evaluation and feedback related to the self-study.

7.3. Nursing Practice

The role that academic leaders in nursing have to play is of major importance in education. The central role of supervision and role modelling must be recognised as part of the nurses' training. Nurse educators should be setting a professional example both as educators and as nurses if they are to be seen as role models for nurses. By nurses being exposed to the positive attitudes of professional nursing staff towards substance abusers, they should be facilitated to develop more positive attitudes themselves. Nurse educators need to clarify their own values. In order to understand the problem, nurses need to be adequately educated in the field of substance abuse and be given the opportunity to develop positive attitudes through discussion, group work and by example. Ideally, nurse training should offer multiple opportunities to learn and enhance clinical skills, with easy access to mentors and clinical supervisors.

Scientific theory can be learnt in the classroom but appropriate clinical placement and mentoring is essential to consolidate learning. Clinical experience should assist the nurse in learning how to use critical thinking skills. If there is a lack of opportunity to actually practice making decisions, and without supervision in facilitating the link between theory and clinical realities, development of critical thinking can be limited.

The role of substance use needs to be acknowledged in all disciplines, and the role of the nurse, as the 'co-ordinator of care' needs to be acknowledged if nurses are to function as effective members of the multi-disciplinary team. In order to function effectively in the role they need to develop confidence in their ability i.e. develop adequate knowledge and skills. Multi-disciplinary teams should share their expertise and work together with open communication, so that learning can take place across disciplines in the clinical environment. Nurses must be taught to accept responsibility as part of the multi-disciplinary team.

The recommendations are as follows:
It is recommended that all teaching staff spend at least a day a week in the clinical environment supervising nurses. This will assist the nursing educator in maintaining a link with practical issues as well as assisting the nurse in his/her learning. Educators will also be seen as role models and valued members of the multidisciplinary team.

With regard to appropriate attitudes, it is recommended that nurse educators reinforce the concept that dealing with the use of harmful substances necessitates acceptance, trust and the ability to understand the problem. In this way nurses can be made aware of their biases.

Finally, it is recommended that nurses be exposed to the principles of teamwork, not merely be taught to refer their problems, as by referring and reporting they are disempowering themselves and failing their patients.

7.4. Professional Development

The hallmark of a profession is taking responsibility for one's own ongoing professional development. All nurses have a responsibility to stay up to date with current practice and maintain professional development. Nurse educators need to be aware of the changes in health, disease, and lifestyle patterns' due to changes in society. New ideas in education and training should be encouraged, as well as a greater emphasis being placed on professional development. Nurse lecturers should be actively encouraged by employers to keep abreast of trends and treatment advances. The employing body needs to provide access to professional development and facilitate educators to keep up to date. This can be achieved by subscribing to nursing and medical journals, sending staff on seminars and by encouraging and subsidising further study with study leave. Nurse educators also need to be self-motivated if they are to enhance their nursing skills.

Once training is complete, it is important that continuing education forms a major part of ongoing learning. The one time registration policy of the SANC requires review. While registration with a professional licencing body is necessary, this is relatively meaningless if there is no mechanism to ensure ongoing competency Minimum levels

to ensure competency need to be instituted as well as regular assessment of competency levels by both the employer and SANC.

The recommendations are as follows:
It is recommended that a mechanism is put into place that would ensure minimum competency of educators, allowing for professional growth and job satisfaction of the individual educator. Performance appraisals appropriate to educators of nursing needs to be introduced if standards of education are to be maintained. Educational institutions should also encourage educators to undertake training to gain appropriate qualifications.

Teaching ability needs to be considered. It is recommended that teaching training be initiated for those who do not have education qualifications or expertise.

Time needs to be made available for appropriate staff development and training. The most convenient place for staff development would be in the workplace. Also, by forming partnerships with NGO's and private hospitals and spending time with substance abuse specialists, for example, psychologists and substance abuse clinics, educators could be exposed to and learn more about the problem.

Finally, learning institutions should be run along a problem solving and critical thinking model when dealing with problems, staff and organisation of training. Nurse educators should be encouraged to use a model for creative and critical thinking.

7.5. Conclusion

These recommendations have focused on substance abuse but can be applied to many other areas of nurse education. Glaser (cited in Kataoka-Yahiro and Saylor 1994:353) stated that in order to think critically knowledge is required. The lack of knowledge noted in these findings could be a reflection of the teaching/learning methods used or it could be due to students being ill equipped to use creatively what information they have. The context in which nurse educators work also stifles any initiative, preventing them from seeing the person as a whole and making changes. It is hoped that by improving and expanding on what is being taught, the result will be the development of a nurse with the capacity to approach the substance abuse problem in a

knowledgeable and compassionate way. There should be close integration between what is taught and the practical components of nursing care. The integration of research, theory and practice is a challenge which educators should be encouraged to embrace.

CHAPTER 8

CONCLUSION

' Drugs destroy lives and communities, undermine sustainable human development and generate crime. Drugs affect all aspects of society in all countries; in particular, drug abuse affects the freedom and development of young people, the world's most valuable asset. Drugs are a grave threat to the health and well being of all mankind, the independence of states, democracy, the stability of nations, the structure of all societies and the dignity and hope of millions of people and their families: -------.' (United Nations 1998:1)

Substance abuse is a major problem in South Africa. This study has shown that substance abuse is not being dealt with in any depth in nurse education programmes in the Western Cape. As a result nurses do not feel competent to deal with the problem. If competence is to be attained in nursing, reality based teaching needs to occur. It would be of benefit to nurses and the community they serve if they were trained as critical thinkers, enabling them to adapt to the changing demands of the health system. This approach requires a motivated student and a flexible and knowledgeable educator who is prepared to encourage a wide range of thinking

The current restructuring of the health service and higher education is an ideal opportunity to take a fresh look at nurse education. Consultation needs to take place between students, educators, training institutions and hospitals in order to identify priority areas for education, if substance abuse is to be effectively dealt with by the multidisciplinary team. ***Field (1989:298) noted that change in nursing education could only succeed if the values predicted in the nursing education system were the same as those inherent in the health care system.***

The challenges facing nurses are enormous, but no greater than the nurses' potential. Nurse educators must address the issue of nurse practitioners regarding critical health problems of society. Substance abuse is a pervasive and critical problem at present. The extent to which critical contemporary issues receive recognition in the curriculum will in part reflect nurse educators' response to societal and nurses needs.

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APPENDIX A **B G ALEXANDER PILOT STUDY**

QUESTIONNAIRE ON ALCOHOL AND DRUG ABUSE

This questionnaire is being given to a group of fourth year student nurses in order to assess student nurses' knowledge and attitudes with regard to substance abuse. The term 'substance' refers to cigarettes, alcohol, solvents, illicit drugs, over the counter and prescription medicines.

This is not a test. There are no right or wrong answers.
Please answer **all** questions and make a **cross** **(X)** on the line provided, next to the appropriate answer/answers.

This questionnaire is anonymous and you will not be identified. If for some reason you do not want to participate in this study, you may do so without prejudice.

Once you have finished completing the questionnaire please hand it in.

Consent to take part in study

Enhancing the role of nurses in substance abuse intervention. A study of student nurses and nursing colleges in the Western Cape.

1. Do you understand what the research is about. Yes___ No___
2. Do you understand that the questionnaires are confidential and anonymous. Yes___ No___
3. Do you understand that the questionnaire is voluntary and that you may withdraw at any time without prejudice. Yes___ No___
4. Do you agree to take part in the study. Yes___ No___

Thank you for your time and co-operation.

BACKGROUND INFORMATION.

1. Which Nursing College/university are you attending at present?

2. For which nursing training program are you registered ?

Diploma__ Degree__

3. How old are you? ____years

4. What sex are you? Male__ Female__

5. In which language do you feel the most comfortable writing / reading /communicating. **(choose only one)**

Xhosa__ Zulu__ English __ Afrikaans__ Other (specify)__________

6. Do you smoke? Yes__ No__

If Yes, specify a) daily amount ______________

7. Do you consume alcohol. Yes___ No___ Hardly ever___

8.Do you take any non prescription drugs? Yes___ No__

9. Have you covered substance abuse in your nursing programme..

Yes___ No___

If NO go to question page 3, Question 15. (Skip the next page)

If your answer to Question 9 was YES continue through to question 14.

10. In which academic year of training did you first receive information on substance abuse?

(choose only one)

First___ Second___ Third___ Fourth___

11. Which of the following areas were covered in your training.

Types of substance___

Substance abuse in general___

Problems related to substance abuse___

Intervention___

Prevention and Education___

Counseling and referrals___

At risk individuals___

All of the above___

12. Throughout your training how many hours of instruction did you receive on substance abuse. **(choose only one).**

a) Less than 5 hours___ 5 - 10 hours___ 10 - 20 hours___ More than 20 hours___

b) Did you feel this was enough? Yes___ No___

13. How was it mainly taught ? **(choose only one)**

Formal lectures___ In service____

Recommended reading/workbooks___ Clinical experience___

Group interaction___ Other (specify)___

a.) Were you able to use this information Yes___ No___

14. What knowledge did you find the most helpful when dealing with people abusing substances? **(choose only one)**

Management___ Health Education___ Counseling___

Referrals___ Prevention___ People at risk___

Problems_____

a.) Would you have liked more information? Yes___ No___

Now go to page 4, question 20)

If your answer to Question 9 was NO, continue from here.

15. Do you think that information on substance abuse would have been useful to you?

Yes___ No___

16. Would you like to receive information? Yes___ No___

17. If Yes, what information would you like to receive?

Types of substances___

Substance abuse in general___

Problems related to substance abuse___

Intervention___

Prevention and Education___

Counseling and referrals___

At risk individuals___

All of the above___

18. Which year of training would you have liked to receive information on substance abuse in?

(choose only one)

First___ Second___ Third___ Fourth___

19. How would you like to receive this information? (choose only one)

Formal lectures___

In service___

Recommended reading/workbooks___

Clinical experience___

Other (specify)________________

All students to answer this page.

20. Who do you think should deal with individuals with substance abuse problems.

All nurses___

Specially trained nurses___

Primary Health Care Nurses___

Doctors___

Substance Abuse Specialists___

Social Workers___

Psychiatric Nurses___

Other (specify)________________

All of the above___

21. Have you come into contact with patients' using/abusing substances?

Yes___ No___

If Yes, In which area/areas?

General Medical___ General Surgical___ Midwifery___

Home___ Clinics___ Psychiatry___

Schools___ Community___

22. Did you feel competent to deal with the situation?

Yes___ No___

If No, Why? (Choose one only)

Lack of knowledge___ Difficult patient___ Not enough time___

Lack of skill___ No support system to refer ___ Other(specify) ________

If Yes, Why?(Choose one only)

Up to date knowledge____ Previous experience____ Extra time available___

Good support structure in place for referral___ Sufficient skill___

Please respond to the following statements by ticking the column that shows how much you agree /disagree with the statement. The following values apply to the table.

Strongly disagree	Disagree	Agree	Strongly agree
1	2	3	4

Statement	1	2	3	4
1. Counseling skills are needed in order to deal with substance abusers.				
2. Not only irresponsible people are substance abusers.				
3. I feel comfortable when dealing with people who are abusing substances.				
4. I personally feel that substance abusers need the same help as any other patient.				
5. I think that smoking is harmful to your health.				
6. Some people have an addictive personality.				
7. Complete withdrawal of the substance is not necessarily the best treatment.				
8. I personally feel that drinking alcohol can be harmful to your health.				
9. Being aware of the dangers of substance abuse should help an individual to stop abusing substances.				
10. Substance abusers should be treated the same as any other patient who is sick.				
11. Substance abusers cannot be held responsible as they have a illness.				
12. I treat all patients the same, even those who keep on abusing substances.				
13. I feel competent to deal with substance abuse in a hospital/clinic setting.				
14. Nurses should educate and counsel all substance abusers even if they do not request help.				
15. It is the responsibility of all nurses to provide information and education on substance abuse.				
16. I do not feel that an individual should be allowed to smoke even if no one else is affected by his or her smoking.				
17. Anyone may feel they are entitled to abuse substances if they are frustrated with life, as it helps to relieve stress.				

Please respond to the following statements by ticking the column that shows you Agree or Disagree or Don't Know.

Statement	Agree	Disagree	Don't Know
1. Dagga is a stimulant			
2. Dagga is as dangerous as alcohol.			
3. Dagga is safe because it is organic and natural.			
4. Dagga can be used medicinally.			
5. Dagga heightens concentration and perception.			
6. Dagga is an hallucinogenic.			
7. Mandrax is a central nervous system stimulant.			
8. Mandrax is an addictive drug.			
9. Codeine is a depressant.			
10. Mandrax can be legally obtained for medicinal purpose.			
11. Mandrax is a depressant			
12. Alcohol is a stimulant.			
13. All alcoholic beverages are equal strength.			
14. Alcoholics have to drink every day.			
15. Nicotine is a stimulant.			
16. Smoking is harmful.			
17. Nicotine is a depressant.			
18. Smoking is substance abuse.			
19. Codeine is a narcotic.			
20. Appetite suppressants(Nobese, Thinz) are stimulants.			
21. Codeine is an analgesic.			
22. Valium is a tranquilliser			

APPENDIX B

B.G Alexander Pilot Study Analysis

BACKGROUND INFORMATION.

1. Which Nursing College are you attending at present?
BG Alexander College of Nursing ;- 33/33 students took part in both tests. Papers were coded for direct comparison of test-re test.

2. For which nursing training program are you registered
Diploma - 33/33 **100% reliability**

3. How old are you? **Mean 23/23 years P =0.0028**

4. What sex are you? 33/33 Female **100% reliability**

5. In which language do you feel the most comfortable writing / reading /communicating. Xhosa: 2/2 Zulu:5/5 English: 18/18 Other: Tsonga 5/5, Ndebele 1/1, Tswana 2/2
100% reliability

6. Do you smoke? No: 33/33 **100% reliability**

7. Do you consume alcohol. Yes: 4/2 No: 27/31 2/2 answered hardly ever
If yes, specify. Beer and wine **p=0.00076**

8. Do you drink alcohol, including beer, wine, or distilled spirits
Ye: 4/2 No: 29/31 **p=0.0076**

9. Please define what you understand by the term substance abuse.
A large number 14 did not answer this question. The remainder gave a vague explanation. The question did not appear to be of any value.

10.Who do you think should deal with individuals with substance abuse problems.

All nurses: 8/8

Specially trained nurses: 9/9

Primary Health Care Nurses: 12/10

Doctors: 9/8

Substance Abuse Specialists: 17/18

Social Workers: 14/14

Psychiatric Nurses: 10/10

Other (specify) All most common 14/14

100% reliability

11. Have you covered substance abuse in your nursing programme?

Yes 29/29 No 3/3 Not answered 1/1 **100% reliability**

p=00000032

12. In which academic year of training did you first receive information on substance abuse?

First: 14/13 Second: 23/22 Third: 4/7 **p=0.00039**

13. Which of the following areas were covered in your training.

Types of substance: 15/12

Substance abuse in general: 11/18

Problems related to substance abuse 0/0

Intervention: 7/7

Prevention and Education: 15/14

Counseling and referrals: 12/9

At risk individuals: 8/4

All of the above: 12/12

14. Throughout your training how many hours of instruction did you receive on substance abuse.

a) Less than 5 hours: 24/26 5 - 10 hours: 6/4 3/3 not answered

p=0.00024

b) Did you feel this was enough? Yes: 10/11 No: 23/22

15. How much tuition would you have liked? **p=0.00001**

16. How was it mainly taught ?

Formal lectures: 25/25 In service: 2/2

Recommended reading/workbooks: 2/2 Clinical experience: 4/4

Other: 3/3 group discussion/guest speaker

100% reliability

Only answer if your answer to 11 was NO.

17. Do you think information on substance abuse would have been useful?

Yes 3/3

18. Would you like to receive information? Yes: 3/3

19. If Yes, what information would you like to receive?

Types of substances

Substance abuse in general

Problems related to substance abuse

Intervention

Prevention and Education

Counseling and referrals

At risk individuals

All of the above: **3/3** **100% reliability**

20. Which year of training would you have liked to receive information on substance abuse in?

First: **3/3** **100% reliability**

21. How would you like to receive this information? (choose only one)

Formal lectures: **3/3**

Clinical experience: **1/1** **100% reliability**

22. Have you come into contact with patients' using/abusing substances?

Yes: 30/28 No: 2/3 Not answered 1/2

If Yes, In which area/areas?

General Medical: 22/24 General Surgical: 6/3 Midwifery: 2/2

Home: 4/4 Clinics: 8/8 Psychiatry: 12/12

Schools: 4/4 Community: 15/15

23. Did you feel competent to deal with the situation?

Yes: 4/4 No: 28/28 Not answered 1/1

If No, Why?

Lack of knowledge: 8/7 Difficult patient: 8/10 Not enough time: 8/4

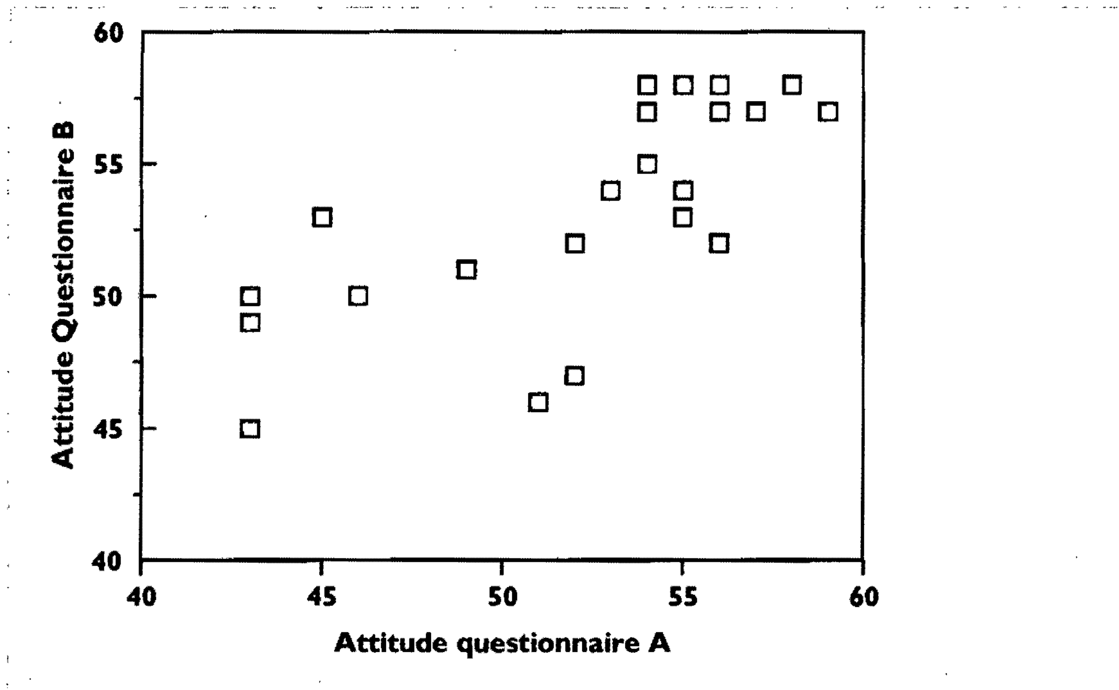
Lack of skill: 17/16 No support system to refer: 2/2

If Yes, Why?

Up to date knowledge: 2/2 Previous experience: 1/1 Extra time available

Good support structure in place for referral: 2/2 Sufficient skill: 2/2

Scatter gram : Attitude Test / Retest Questionnaires



Key : A (y-axis) first questionnaire
B (x-axis) second questionnaire

The above scatter gram represents a comparison between the test and retest questionnaires on attitude. A Pearson's correlation co-efficient of r = 0.72 was obtained showing a positive degree of reliability between the test retest.

APPENDIX B2 **KNOWLEDGE**

Kappa co-efficients were measured on the correlation of test retest answer in the knowledge section.

Statement	**p-value**
1. Dagga is a stimulant	0.000428
2. Dagga is as dangerous as alcohol.*	0.126000
3. Dagga is safe because it is organic and natural.	0.000004
4. Dagga can be used medicinally.	0.000000
5. Dagga heightens concentration and perception.*	0.156000
6. Dagga is an hallucinogenic.	0.077800
7. Mandrax is a central nervous system stimulant.	0.003130
8. Mandrax is an addictive drug.*	0.500000
9. Codeine is a depressant.	0.002170
10. Mandrax can be legally obtained for medicinal purpose.	0.000879
11. Mandrax is a depressant	0.035200
12. Alcohol is a stimulant.	0.000790
13. All alcoholic beverages are equal strength.*	0.500000
14. Alcoholics have to drink every day.	0.008080
15. Nicotine is a stimulant.	0.008080
16. Smoking is harmful.*	0.628000
17. Nicotine is a depressant..	0.231880
18. Smoking is substance abuse.*	0.559800
19. Codeine is a narcotic.	0.071300
20. Appetite suppressants (Nobese, Thinz) are stimulants.	0.236300
21. Codeine is an analgesic.	0.332900
22. Valium is a tranquilliser	0.089067

*** These were removed for the final questionnaire**

APPENDIX C **LECTURER INTERVIEW SCHEDULE**

University/college

Background

1. How long have you been teaching?______

2. What professional qualifications do you have?______

3 .What subjects do you teach?_______

4. Which department are currently working in?___________

5. Which academic year do you teach_________

Knowledge

1. How do you see your role in educating nurses in substance abuse? (What input do you feel you should be giving on substance abuse)

2. Could you briefly describe the curriculum offered in your department on substance abuse.

4. On what basis are decisions made on what will be taught on substance abuse?

5. Could you briefly outline the syllabus that the college follows in substance abuse.

6a. When is substance abuse first introduced into the syllabus?(Which year)

First_____ Second______ Third_____ Fourth_______

6b. Who makes this decision?

6c. When do you think it should be introduced?

First____ Second____ Third____ Fourth____

7. Is substance abuse integrated into all teaching Yes___ No___

If NO, State how it is taught.

8. How do you think substance abuse should be handled in the syllabus?

9. On average how much time is allocated to substance abuse during a nurses training?________________hours

10. Do you feel that enough hours are allocated ?

Yes___ No_______

11a. How much lecture time is spent on the following areas:

alcohol____

smoking____

drugs (illicit and OTC)____

solvents______

11b. Which of the following areas are covered:

Types of substances._______

Substance abuse in general._______

Problems related to substance abuse._______

Intervention._______

Prevention and Education._______

Counseling and referrals._______

At risk individuals._______

12. Do students do clinical practica in substance abuse areas as part of their training?

Yes___ No____

13. Is nursing intervention taught according to specific problems related to :

a. Diagnosis Yes___ No___

b. Individual needs during hospitalisation Yes___ No____

14. When identifying patient needs/problems (i.e. liver disease) is substance abuse intervention taught as a possible secondary diagnosis?

Yes____ No___

15. How are students assessed on substance abuse?

Theoretical exams____ Practical exams____ Assignment___

Other (Specify)

16. What are students taught to do if they become aware of a substance abuse problem in a general ward?

17. Do you feel that your input with regard to substance abuse has been governed by the curriculum and lecture time allocation?

Yes_______ No________

Specify how.

18. Do you see a role for nurses in the assessment and treatment of substance abuse in all areas of nursing?

Yes____ No_____

19. What are students taught to do with on admission when data points to substance abuse

(i.e. Smoking. Drinking, Drugs)?

20. Do you enjoy teaching about substance abuse? Yes____

No___

21. What experience do you have in implementing substance abuse programmes?

Practical________ Courses_________ Other(specify)

22. If you have time in your teaching schedule to attend in service on substance abuse would you attend?

Yes____ No_______

23. Does the college/university encourage you to attend in service on substance abuse?

Yes___ No_____

If YES, how often do you attend?_______annually

24. Would you like to be involved in drawing up a programme in substance abuse?

Yes_____ No_______

25. Would you be interested in updating your knowledge on substance abuse prevention and intervention?

Yes_____ No_________

APPENDIX D1 **STUDENT NURSE QUESTIONNAIRE**

QUESTIONNAIRE ON ALCOHOL AND DRUG ABUSE

This questionnaire is being given to all fourth year student nurses at colleges/universities in the Western Cape in order to assess student nurses knowledge and attitudes with regard to substance abuse. The term 'substance' refers to cigarettes, alcohol, solvents, illicit drugs, over the counter and prescription medicines.

This is not a test. There are no right or wrong answers.
Please answer **all** questions and make a **cross (X)** on the line provided, next to the appropriate answer/answers.

This questionnaire is anonymous and you will not be identified. If for some reason you do not want to participate in this study, you may do so without prejudice.

Once you have finished completing the questionnaire please hand it in.

Consent to take part in study

Enhancing the role of nurses in substance abuse intervention. A study of student nurses and nursing colleges in the Western Cape.

1. Do you understand what the research is about. Yes___ No___
2. Do you understand that the questionnaires are confidential and anonymous.
Yes___ No___
3. Do you understand that the questionnaire is voluntary and that you may withdraw at any time without prejudice. Yes___ No___
4. Do you agree to take part in the study. Yes___ No___

Thank you for your time and co-operation.

BACKGROUND INFORMATION.

1. Which Nursing College/university are you attending at present?

University: Western Cape__ Cape Town __ Stellenbosch __

College: Sarleh Dollie__ Carinus__ Nico Malan__ Otto du Plessis__

2. For which nursing training program are you registered ?

Diploma__ Degree__

3. How old are you? ____years

4. What sex are you? Male__ Female__

5. In which language do you feel the most comfortable writing / reading /communicating. **(Choose only one)**

Xhosa__ Zulu__ English __ Afrikaans__

Other (specify)________

6. Do you smoke? Yes__ No__

If Yes, specify a daily amount ___________

7. Do you consume alcohol. Yes___ No___ Hardly ever___

8.Do you take any non prescription drugs? Yes___ No__

9. Have you covered substance abuse in your nursing programme..

Yes___ No___

If NO go to page 3, Question 15. (Skip the next page)

If your answer to Question 9 was YES, continue through to question 14.

10. In which academic year of training did you first receive information on substance abuse?

(Choose only one)

First___ Second___ Third___ Fourth___ All___

11. Which of the following areas were covered in your training.

Types of substance___

Substance abuse in general___

Problems related to substance abuse___

Intervention___

Prevention and Education___

Counseling and referrals___

At risk individuals___

All of the above___

12. Throughout your training how many hours of instruction did you receive on substance abuse. **(Choose only one).**

a) Less than 5 hours___ 5 - 10 hours___ 10 - 20 hours___ More than 20 hours___

b) Did you feel that this was enough? Yes___ No___

13. How was it mainly taught ? **(Choose only one)**

Formal lectures___ In service____

Recommended reading/workbooks___ Clinical experience___

Group interaction___ Other (specify)___

a.) Were you able to use this information Yes___ No___

14. What knowledge did you find the most helpful when dealing with people abusing substances? **(Choose only one)**

Management___ Health Education___ Counseling___

Referrals___ Prevention___ People at risk___

Problems_____

a.) Would you have liked more information? Yes___ No___

Now go to page 4, question 20)

If your answer to Question 9 was NO, continue from here.

15. Do you think that information on substance abuse would have been useful to you?

Yes___ No___

16. Would you like to receive information? Yes___ No___

17. If Yes, what information would you like to receive?

Types of substances___

Substance abuse in general___

Problems related to substance abuse___

Intervention___

Prevention and Education___

Counseling and referrals___

At risk individuals___

All of the above___

18. In which year of training would you have liked to receive information on substance abuse?

(Choose only one)

First___ Second___ Third___ Fourth___

19. How would you like to receive this information? **(Choose only one)**

Formal lectures___

In service___

Recommended reading/workbooks___

Clinical experience___ Other (specify)___________________

All students to answer this page.

20. Who do you think should deal with individuals with substance abuse problems.

All nurses___

Specially trained nurses___

Primary Health Care Nurses___

Doctors___

Substance Abuse Specialists___

Social Workers___

Psychiatric Nurses___

Other (specify)________________

All of the above___

21. Have you come into contact with patients using/abusing substances?

Yes___ No___

If Yes, In which area/areas?

General Medical___ General Surgical___ Midwifery___

Home___ Clinics___ Psychiatry___

Schools___ Community___

22. Did you feel competent to deal with the situation?

Yes___ No___

If No, Why? **(Choose one only)**

Lack of knowledge___ Difficult patient___ Not enough time___

Lack of skill___ No support system to refer ___ Other(specify) ________

If Yes, Why? **(Choose one only)**

Up to date knowledge____ Previous experience____ Extra time available___

Good support structure in place for referral___ Sufficient skill___

Please respond to the following statements by ticking the column that shows how much you agree /disagree with the statement. The following values apply to the table.

Strongly disagree	Disagree	Agree	Strongly agree
1	2	3	4

Statement	1	2	3	4
1. Counseling skills are needed in order to deal with substance abusers.				
2. Substance abusers are not always irresponsible people.				
3. I feel comfortable when dealing with people who are abusing substances.				
4. I personally feel that substance abusers need the same help as any other patient.				
5. I think that smoking is harmful to your health.				
6. Some people may have an addictive personality.				
7. Complete withdrawal of the substance is not necessarily the only treatment.				
8. I personally feel that drinking alcohol can be harmful to your health.				
9. Being aware of the dangers of substance abuse should help an individual to stop abusing substances.				
10. Substance abusers should be treated the same as any other patient who is sick.				
11. Substance abuse is an illness.				
12. I treat all patients the same, even those who keep on abusing substances.				
13. I feel competent to deal with substance abuse in a hospital/clinic setting.				
14. Nurses should educate and counsel all substance abusers even if they do not specifically request help.				
15. It is the responsibility of all nurses to provide information and education on substance abuse.				
16. I do not feel that an individual should be allowed to smoke even if no one else is affected by their smoking.				
17. Anyone may feel that they are entitled to abuse substances if, it helps to relieve stress.				

APPENDIX D2

KNOWLEDGE ANSWER GRID

Statement	Agree	Disagree	Don't Know
1. Dagga is a stimulant		2	
2. Dagga is as dangerous as alcohol.	xxxxxxx	xxxxx	
3. Dagga is safe because it is organic and natural.		2	
4. Dagga can be used medicinally.	2		
5. Dagga heightens concentration and perception.	2		
6. Dagga is an hallucinogenic.	2		
7. Mandrax is a central nervous system stimulant.		2	
8. Mandrax is an addictive drug.	2		
9. Codeine is a depressant.		2	
10. Mandrax can be legally obtained for medicinal purpose.		2	
11. Mandrax is a depressant	2		
12. Alcohol is a stimulant.		2	
13. All alcoholic beverages are equal strength.		2	
14. Alcoholics have to drink every day.	2		
15. Nicotine is a stimulant.	2		
16. Smoking is harmful.	2		
17. Nicotine is a depressant..	2		
18. Smoking is substance abuse.	2		
19. Codeine is a narcotic.	2		
20. Appetite suppressants (Nobese, Thinz) are stimulants.	2		
21. Codeine is an analgesic.	2		
22. Valium is a tranquilliser	2		

APPENDIX E **LECTURER QUESTIONNAIRE**

UNIVERSITY / COLLEGE

Background

1. How long have you been teaching?______
2. What professional qualifications do you have?_______
3 .What subjects do you teach?_______
4. Which department are you currently working in?____________
5. Which academic year of study do you teach?_________

Knowledge

1. How do you see your role in educating student nurses in substance abuse? What input do you feel you should be giving on substance abuse?

2. Could you describe the curriculum offered in <u>your department</u> on substance abuse?

3. On what basis are decisions made on what will be taught?

4. When is substance abuse first introduced into the syllabus?

First ___ Second ___ Third ___ Fourth ___

5. Who makes the decision when substance abuse will first be introduced?

6. When do you think it should be introduced?

First ___ Second ___ Third ___ Fourth ____

7. Is substance abuse integrated into all teaching?

Yes ___ No ____

8. How do you think substance abuse should be handled in the syllabus?

9. On average how much time is allocated to substance abuse during a nurses training?

____________ hours

10. Do you feel that enough hours are allocated to substance abuse?

Yes ____ No ____

11. How much lecture time is spent on the following areas?

Alcohol __________

Smoking __________

Drugs (illicit and OTC) __________

Solvents _______________

12. Which of the following areas are covered?

Types of substance abuse__________

Substance abuse in general ________

Problems related to substance abuse___________

Intervention____________

Prevention and education ___________

Counseling and referrals ___________

At risk individuals ____________

13. Do students do clinical practica in a specialised substance abuse area?

Yes ___ No ____

14. Is nursing intervention taught according to specific problems related to diagnosis or individual needs during hospitalisation?

A. Diagnosis Yes__ No ___

B Individual needs Yes ___ No ___

15. When identifying a patients needs/problems (i.e. Liver disease) is substance abuse taught as a possible secondary diagnosis?

Yes ___ No ____

16. How are students assessed on substance abuse?

Theoretical exams __ Practical exams ___ Assignment __

Other (Specify) ___

17. What are students taught to do if they become aware of a substance abuse problem in a general ward?

18. Do you feel that your input with regard to substance abuse has been governed by the curriculum and lecture time allocation? Specify how?

Yes ____ No ____

19. Do you see a role for nurses in the assessment and treatment of substance abuse in all areas?

Yes ___ No _______

20. What are students taught to do on admission when data points to substance abuse (i.e. Smoking, drinking, drugs)?

21. Are you comfortable teaching about substance abuse?

Yes ___ No ____

22. What experience do you have in implementing substance abuse programmes?

Practical ____ Courses ____ Other (specify) ____

23. If you had time in your teaching schedule to attend substance abuse training, would you?

Yes ___ No ____

24. Does the college/ university encourage you to attend in service on substance abuse?

Yes ___ No ___

25. Would you like to be involved in drawing up a substance abuse programme?

Yes ___ No ___

26. Would you be interested in updating your knowledge on substance abuse prevention and intervention?

Yes ___ No ____

APPENDIX F **STUDENT ATTITUDE ANALYSIS**

TABLE 4.12 - Attitudes (n=331)

Percent answered %

Statement	1	2	3	4	Not answered
1. Counseling skills are needed in order to deal with substance abusers.	1.8	2.1	27.1	69.0	0.0
2. Substance abusers are not always irresponsible people.	5.8	10.6	60.2	22.8	0.6
3. I feel comfortable when dealing with people who are abusing substances.	13.1	45.0	38.0	3.3	0.6
4. I personally feel that substance abusers need the same help as any other patient.	5.8	12.5	30.5	51.2	0.0
5. I think that smoking is harmful to your health.	2.4	0.0	23.0	74.6	0.0
6. Some people have an addictive personality.	7.3	16.5	50.6	25.0	0.6
7. Complete withdrawal of the substance is not necessarily the best treatment.	16.7	21.6	47.4	13.4	0.9
8. I personally feel that drinking alcohol can be harmful to your health.	0.9	10.3	30.0	58.8	0.0
9. Being aware of the dangers of substance abuse should help an individual to stop abusing substances.	3.6	13.3	40.5	42.3	0.3
10. Substance abusers should be treated the same as any other patient who is sick.	7.3	18.4	37.2	36.9	0.3
11. Substance abusers cannot be held responsible as they have an illness.	25.7	44.4	23.0	6.6	0.3
12. I treat all patients the same, even those who keep on abusing substances.	7.3	19.5	51.4	21.0	0.9
13. I feel competent to deal with substance abuse in a hospital/clinic setting.	4.2	37.0	46.1	11.8	0.9
14. Nurses should educate and counsel all substance abusers even if they do not specifically request help.	1.5	9.4	52.9	36.0	0.3
15. It is the responsibility of all nurses to provide information and education on substance abuse.	0.9	7.3	43.8	46.5	1.5
16. I do not feel that an individual should be allowed to smoke even if no one else is affected by their smoking.	11.9	34.3	29.8	22.5	1.5
17. Anyone may feel that they are entitled to abuse substances if, it helps to relieve stress.	37.9	35.2	19.4	6.7	0.9

KEY: Strongly disagree (1) Disagree (2) Agree (3) Strongly agree (4)

APPENDIX G STUDENT KNOWLEDGE ANALYSIS

TABLE 4.13 - Knowledge (n=331)

Percent Answered %

Statement	Correct Answer	Incorrect Answer	Don't Know
1. Dagga is a stimulant	20.3	8.2	71.5
2. Dagga is as dangerous as alcohol.	\\\\\\\\\\\\	\\\\\\\\\\\\\\	\\\\\\\\\\\
3. Dagga is safe because it is organic and natural.	80.4	0.6	19.0
4. Dagga can be used medicinally.	53.8	3.0	64.4
5. Dagga heightens concentration and perception.	27.5	8.2	64.4
6. Dagga is an hallucinogenic.	71.3	1.2	27.5
7. Mandrax is a central nervous system stimulant.	11.5	6.0	82.5
8. Mandrax is an addictive drug.	89.7	0.3	10.0
9. Codeine is a depressant.	32.6	6.0	61.3
10. Mandrax can be legally obtained for medicinal purpose.	47.6	2.4	55.0
11. Mandrax is a depressant	29.9	3.6	66.5
12. Alcohol is a stimulant.	33.8	6.6	59.5
13. All alcoholic beverages are equal strength.	76.7	0.9	22.4
14. Alcoholics have to drink every day.	42.6	8.2	49.2
15. Nicotine is a stimulant.	69.8	2.7	27.5
16. Smoking is harmful.	90.0	0.9	9.1
17. Nicotine is a depressant..	40.5	4.8	54.7
18. Smoking is substance abuse.	79.2	1.8	19.0
19. Codeine is a narcotic.	42.0	5.1	52.9
20. Appetite suppressants (Nobese, Thinz) are stimulants.	48.3	3.6	48.0
21. Codeine is an analgesic.	79.8	0.3	19.9
22. Valium is a tranquilliser	78.5	0.0	21.5

APPENDIX H LECTURER QUESTIONNAIRE – SURVEY COMMENTS

*** What input do you feel you should be given on substance abuse?*

Three major theme areas were identified. These were general knowledge, rehabilitation and prevention grouped under the following themes:

General knowledge

* Self knowledge of attitudes
* Treatment
* Effects of substance abuse on the individual, family, occupation, parents and peers.
* Main focus of knowledge was aimed at alcoholism
* Predisposing factors
* Extent of the problem

Rehabilitation

* Resources and available facilities
* Education on an alternative lifestyle and job creation
* Counseling and confrontational issues
* Patient education on coping strategies

Prevention

* Identification of problem/behaviour patterns
* Principles based on the cause of the disease
* Education on use of leisure time

*** Could you describe the curriculum offered in <u>your department</u> on substance abuse?* (lecturers were asked if possible to provide a copy of their curriculum)

Responses were varied and were grouped into themes. Four theme areas were identified as follows:

General information and identification of a substance abuse problem

* Epidemiology
* Description of a substance abuse problem

* Predisposing factors
* Assessment of at risk patients
* Substance related disorders
* Organic brain disorders/ drug related psychosis/ influence of substance abuse on mental disorders.
* Types of substance abuse
* Assessment of risk
* Difference between abuse and dependency
* Signs of professional abuse

Management

* Detoxification
* Rehabilitation
* Community resources
* Counseling

Psychosocial effects

* Physical and psychosocial dynamics
* Social issues
* Psychological issues

Health promotion and education

* Prevention
* Health education
* Screening
* Integrated health promotion approach

One respondent noted that substance abuse was incorporated into all subjects.

*** On what basis are decisions made on what will be taught?*

All answered that a curriculum committee made decisions. Four (40%) of institutions also looked at current trends.

*** When is substance abuse first introduced into the syllabus?*

Substance abuse was introduced in the first year by one (10%) institution, 3 (30%) in second year, 3(30%) third year and 3(30%) in fourth year

*** Who makes the decision when substance abuse will first be introduced?*

Nine (90%) responded that decisions were made by the curriculum committee. In one (10%) instance, the subject was introduced as a result of a student lead.

*** When do you think it should be introduced?*

Nine (90%) of lecturers thought substance abuse should be introduced in the first year and one (10%) thought it should be introduced in second year.

*** Is substance abuse integrated into all teaching?*

Five (50%) integrated substance abuse into all subjects. One was unsure, one taught substance abuse 'as it arises' and the remainder did not integrate it.

*** How do you think substance abuse should be handled in the syllabus?*

The following comments were made:

'Only as a minor problem i.e. when dealing with liver failure.'

'Effects on person, family and community.'

' Integrated if it plays a role in a certain area.'

'Integrated into syllabus.'

' Must be taught by all departments.'

' More emphasis on integration in various disciplines.'

' In Social Science.'

'Covered in a theme area i.e.. Children at risk, street children.'

*** On average how much time is allocated to substance abuse during a nurses training?*

Answers ranged from 'difficult to say,' 'unable to quantify', 'not sure', to from 6 to 74 hours.

*** Do you feel that enough hours are allocated to substance abuse?*

Five (50%) felt enough time was allocated to substance abuse education, one (10%) respondent was unsure, one (10%) respondent felt that with the approach they used time was not important, two (20%) respondents stated that not enough time was allocated, one (10%) stated that time was 'probably' enough.

*** How much lecture time is spent on the following areas?*

Alcohol, smoking, drugs (illicit and OTC), solvents.

Overall, input ranged from 6 to 20 hours, with a mean of 12 hours, spent on basic substance abuse education. Substance abuse was then further integrated into other areas. Alcohol received the most attention. Four (40%) institutions integrated all substances throughout i.e.. Medical, surgical, social pathology, with one respondent stating that substance abuse was 'themed' in at risk children. One (10%) respondent commented that, 'it should be covered elsewhere'. Solvents and drugs received minimal input, with one college stating that 3 periods were utilised and one college identifying it as a self study area.

*** Which of the following areas are covered?*

Types of substance abuse substance abuse in general, problems related to substance abuse, intervention, prevention and education, counseling and referrals, at risk individuals.

Eight (80%) respondents covered all of the above areas, one (10%) did not respond and one (10%) covered signs and symptoms, consequences, counseling and referral agencies.

*** Do students do clinical practica in a specialised substance abuse area?*

Six (60%) respondents answered yes, with one respondent identifying schools and street children.

*** Is nursing intervention taught according to specific problems related to diagnosis or individual needs during hospitalisation?*

Five (50%) respondents taught according to both diagnosis and needs, three (30%) taught according to needs, one (10%) taught according to diagnosis and one (10%) respondent did not answer.

*** When identifying a patients needs/problems (i.e.. Liver disease) is substance abuse taught as a possible secondary diagnosis.*

Four (40%) respondents answered yes, one (10%) respondent was unsure, one (10%) respondent answered 'probably', one (10%) respondent commented that it was 'an adult question' the remaining three (30%) answered no.

** *How are students assessed on substance abuse?*

Three (30%) respondents assessed on assignment, five (50%) assessed theoretically, one (10%) assessed practically and one (10%) assessed as part of a theme.

** *What are students taught to do if they become aware of a substance abuse problem in a general ward?*

Four (40%) respondents taught students to refer to the social worker, two (20%) respondents were unsure, four (40%) respondents taught students to report to the person in charge or multidisciplinary team i.e.. 'Approach the person in charge. If there is no ear talk to student mentor'.

** *Do you feel that your input with regard to substance abuse has been governed by the curriculum and lecture time allocation? Specify how?*

Eight (80%) respondents felt that their input had been affected. Of these only, three gave reasons i.e.. 'As with most content, time is limited', 'SANC hours', 'I set it'. Of those that answered no (20%) no comment was given.

** *Do you see a role for nurses in the assessment and treatment of substance abuse in all areas?*

All (100%) respondents answered in the affirmative.

** *What are students taught to do on admission when data points to substance abuse (i.e.. Smoking, drinking, drugs).*

Four (40%) respondents taught the student to report or refer, two (20%) were unsure, four (40%) did not answer the question.

** *Are you comfortable teaching about substance abuse?*

All (100%) respondents answered in the affirmative.

** *What experience do you have in implementing substance abuse programmes?*

Five (50%) of the respondents had no experience, the remainder had mainly practical experience working in a substance abuse speciality area.

** *If you had time in your teaching schedule to attend substance abuse training, would you?*

All (100%) answered affirmatively and three respondents commented that they had already.

** *Does the college/ university encourage you to attend in service training on substance abuse?*

Five (50%) of respondents would be encouraged to attend, one (10%) respondent did not feel it was applicable and the remainder (40%) felt they would not be encouraged.

** *Would you like to be involved in drawing up a substance abuse programme?*

Six (60%) respondents would not like to get involved. Comments were as follows, 'for whom', 'too busy', 'not as an additional responsibility' teaching it is too integrated for me to commit to focusing on this.

** *Would you be interested in updating your knowledge on substance abuse prevention and intervention?*

All (100%) expressed an interest in updating their knowledge.

APPENDIX J **FOCUS GROUP TRANSCRIPT**

Transcription of Western Cape College of Nursing Focus Group - 17 February

Moderator Let's start with you giving me your views on whether substance abuse should be included in the basic curriculum

1 I will start by saying that seeing as it's a very prevalent social problem, especially in the Western Cape, it is essential that it be taught.

2 Nodded in agreement

6 I think it should be taught in sociology as part of the family and I think that --------, I'm not certain that it is covered under the functions of the family and should be part of it, as substance abuse is very important. I don't know the actual content of sociology but doesn't that fall under family?

4 Ja, it does fall under it. Not under family but under social problems, social issues aspects ----------, as social substance abuse. The actual resources in community when they do the community work as well as in psychiatry where they talk about the problems, you know, related to social issues.

5 A pre pro the general issues of the substance abuse.

4 Ja, the overview you know of individual families and, um, the community sociological problems aspect will also get picked up.

2 And in community science we also do the essential drug list and on that list we do the different generic drugs used in the clinics and also touch on paraffin abuse.

1 The essential drug list, ---- what, -- what drugs are those.

2 It's all the drugs that are used in the clinics nowadays, it's um-----

1 Schedule 1 - 7.

2 Ja, 1 - 7 ja those on code, the medical ones that they use.

6 I think that in the first year, um you'll have to help me with this Theresa, they touch on, well, touch on it, talk about it. We talk about, um, what may become substance abuse for example alcohol and smoking. Especially in first year where they are adjusting to changes in a new position. I think that the other we also do is um, um, is practice we talk about abuse.

2 Now you have to help me, first year they do um non communicable and communicable diseases, as part of that non communicable they do things like smoking and alcohol and um --

6 OK, smoking, alcohol and something else

2 They do, um, um, but mostly those are the two that they actually cover in the first year at first level and that is something that they do due to the fact that substance abuse is affected there.

6 Complications

2 Complications, not your treatment. They do that in psychiatry and they do the resources in community resources

1 Referral resources

2 Ja, they deal with them and problems.

3 We also deal with that in psychiatry because --------- Theresa can you help me out here, because she used to do psychiatry. A lot of the patients will, um, be that is discharged from hospital, um, will have a drug problem and alcohol problem and, um, especially where they are on medication it is a huge problem because one of the things that is, um, um, we are teaching to them they mustn't use drugs and alcohol and things like that with their medication. And also um, um, the effect of the alcoholism on the family and OK because lots of the people with their psychiatric problems that they also um, abuse alcohol, a lot of them got a lot of problems and um readmission's.

5 Ja, they have things like fancomi's and organic brain diseases.

6 Ja, and they get psychotic.

5 Ja, organic brain disorders associated with alcohol like your fanconi's encephalopathy we emphasise the alcohol there.

3 Because it's always um, sometimes it's very difficult um, um especially when it's the first time that the patient is admitted because um they can hear voices from the alcohol and the cannabis and um um a clinical, the psychiatrist will really sometimes find it difficult to differentiate if it is the 'schitzophreen' (Afrikaans pronunciation) or if it is the cannabis. They have to really take a history and a mental status before they make a diagnosis --------- so that's why OK. If you look in the psychiatry hospitals years ago um, 80% of the patients were schitzophreen because they heard voices but um very few people recognise that it could be a possibility of alcohol or cannabis.

5 The thing I find in psychiatry is that in the past they used to work at Stikland hospital, which is the only government institution with drug and alcohol rehabilitation wards, and students used to be placed there. Now unfortunately they don't place them there anymore and that is a deficit.

3 Nods agreement. Um because I was working there as a third year student I don't know now but, that they had a very good rehab program.

5 Ja, Ja it's still going, they've got a 4 - 6 week program it's still going strongly, but no students are exposed to those patients unfortunately.

3 About three years ago they also had drug um alcohol rehab at Lentegeur, 3,4 years ago but it is no longer.
1 In EPP we cover the medico legal implications that necessitate the control and taking of drugs and if it affects the patient.

2 Again, sorry, all medico legal medication, controlled drugs that you hand out in hospital.

1 Ja, ja we touch on it in first year, in third year it comes into acts and omissions, you know all their drugs.

4 Even in sociology

2 Then in second year they start with their pharmacology, the workings of. They're taught about medicines, the workings of medicines and then they go into the practical field and it's actually there that they have to know not to overdose, ---- overdose the patient and things like that so they must have a thorough knowledge of the workings of the drugs and the application.

1 What drugs do you cover in pharmacology?

2 I'm referring now also to the prescription and the counter drugs where you are working with them in the hospital, you must also give out medico legal, controlled drugs and you include some of the counter drugs. And the fact that it's not only the drugs but you have so many you know can be abused. We also work with schedule 6 and 7 because for post operation they give it out and must have a thorough knowledge.

6 And illegal drugs do you cover the pharmacology

2 No, not specifically

5 No, we just inform them about the LSD's and stuff but not the pharmacological actions

6 I think there is a particular, yes I remember a policeman that comes in and he covers certain aspects of drugs, that's in 2nd year

2 Or is it 3rd year

6 I'm not sure either 2nd or 3rd year, I'm not sure which topic he does

5 It depends on what happens because very often in for, sociology most of the um social problems which students are given is self activity where they need to present it, but for the last couple of years or so all the students may or may not come to the presentations. But I do think in community because the same thing applies in community that they have assignments to do. It's not necessarily tutorial staff that they get the information from. But, I don't know if all the students attend because they often only come to theirs and bunk or are sick

2 Ja, and then they say they haven't done the work because we haven't given it to them

1 And what year is that

5 That's for third year

1 And sometimes it's 4th it depends on which learning activities one has had.

5 In psych all the drugs you use are schedule 5. The emphasis is on the side effects

3,4 general agreement Ja, ja and nodding of heads
Of the drug rather than the extra pyramidal effects.

1 I think in nursing science drugs are covered under each system
General agreement and nodding of heads

1 I speak under correction, in each system in 2nd year, so they cover the respiratory system, cardiac system and so when they do the pharmacology attached to that particular system they will do all the scheduled drugs or whatever type of drug and then they do the side effects and complications

3 And possible complications to those conditions

All agree

3 And peptic ulcers related to alcohol. OK last year in short term admissions at Valkenburg where every second year interviews patients admitted, I don't know if Theresa has been there. I always sit and listen and say to the students when a patient is readmitted about a month after discharge um ask them are you using any alcohol or drugs with your medication. And nearly every patient is using alcohol with the medication, then they have a relapse and come back, I don't know how do you experience it, especially in ward 16

1 Another problem maybe this is pre-empting, the next statement is abuse by student nurses themselves

4 Ja, ja this is a major problem

1 Ja, that really is a major problem

4 And that often comes up particularly when I do the psychology when I do the adolescent and the then I will speak of the young adult and the effects of peer pressure. It is amazing how it comes out under the group discussion, not only in class but what students write in exams.

1 But I think it's indicative of general high-risk behavior, sexually as well

4 Ja

1 You know the type of activities they are involved in

General agreement

3 What worries me, um OK I have nothing against alcohol um but what worries me is that the students they mis um abuse alcohol, how can they give advise to the patients.
Because there are lots of problems, I mean there are 4th year students where I must go and write statements

1 I don't think it's a question of not being aware that there are services and that there is help. They are not perceptive to it, I think or a least at the college where I was previously there is desire to help such a person not a punitive approach

6 Ja, I think the word gets around

1 Ja' I don't know how to get through to them

4 I think that the problem with many of the students is unless it comes out

1 Probably because a friend has become concerned or they are out partying

2 I think another problem is cannabis or I don't what you call it pot

1 Leoni what did you say

2 Pot, grass

4 And unless something major happens or they come for help we do nothing

2 Like jump through a window

4 You see they become psychotic the other sought of problems, because I don't necessarily think it's all that bad there is no protocol for dealing with it.

1 You can smell it, you know you can't smell all substances but sometimes you can smell it on their breath, then you would ask someone else to smell but normally but that time they have admitted to it and you know you can also pick it up with absenteeism.

2 Especially weekends

1 Alcoholism is very easy to pick up

6 And I think the fact that we've got a counselor on the premises helps

4 And we deal with it in class sometimes what I do, it depends on what I decide or last year I got them to write their biography or autobiography up until adolescence and then asked them to share with one person the similarities and from that learn and compare this to the textbook and then they could identify the stages of adolescence

and the developmental steps. We tell them this is what we expect of you and they were given carte blanche to do the assignment and to find their own information, this way I learn of a lot of services I don't know about.

1 At some of the colleges I know they take them on visits to rehab centres
2 Ja Vista Nova

4 They come to the community itself so that is why we don't do it in sociology

2 What we also use discovery learning say for instance where a mother and child come in and there has been a paraffin abuse problem or accident, then the student must run with that case and write up a case study where they come from and then look at all the causes of accidents in the house and all that

3 And also in community psychiatry a lot of patients because alcohol is often involved the family it is the wife and um she tells him if he um is not in treatment then um they are going to divorce them and then they become the people get depressed so if you go back to the history alcohol plays a major role you know and also um alcohol abuse in the family and you get problems at work

1 But my gut feeling is accept perhaps for psychology the management of substance abuse is a dispassionate process in other words it contributes to something or it's a consequence of something

4 That's true
But it's not really the focus of your teaching

6 ja, ja

1 Except perhaps in psychology
But, I can only speak about EPP and at the moment general nursing science is that the focus of abuse might be sighted as a contributing factor or content but that's my perception it's not included

4 True

3 Another big problem um in this country is that if you do research here there are areas that you go to it is a big problem

Someone got up to close the door as the phone kept on ringing

Moderator How do you assess the student's knowledge?

4 Depends on what you want, for example from a sociological aspect the question will be on social pathology it will depend, but it usually involves most of the objectives you know the individual, the family, society, community, the resources available um

2 And the presentation how can you recognise a person now, it is very important

3 And what the signs and symptoms are

1 Included in that would be the individual symptoms

2,3 Ja, ja,

1 It is well covered in social pathology

4 And um ja we um also in psychiatry not now but until a year or so ago we touched also on the psycho symptoms because a lot of young people come into the adolescent unit and the mother says I don't know what is wrong with my child and then when you start taking history you say to the child, because the mother says there is something wrong my child is sensitive it hurts and I don't know what is happening so then it comes out that the psycho symptoms the child has stayed away from school, it's actually sociology but we also reinforce it because they are taking drugs

6 Ja because it's not part of the group

General group discussion and chitchat

Moderator OK Can we carry on. What did you say ----------?

5 What we go into in psych here again is so for instance there's a history of alcohol abuse we reiterate the fact that those guys must be placed on a definite regime of Thiamine and Vitamin Co., so the management, the acute management of an acute phase of say for instance encephalopathy, that's what we concentrate on, not really the management or the diagnosis of alcohol abuse as such

1 Because say with something like liver cirrhosis they come in with hepatitis, you would draw a link between alcohol abuse and substance abuse

6 But, then it's not it's not taught the actual substance abuse and the causes, the vitamin regime, the risks, assessment, the actual treatment is not really taught in fundamental nursing science at all. It's linked to the A's and B's, it's just taught as a result of the alcohol or-----

1 Um, yes

4 I was just going to say that the reason it's not particularly taught in um community because it's taught in sociology and that is at an applied level and they are supposed to know that when they see those signs and symptoms and they must take note of it, because you know that is what we emphasise in sociology. It's not something they must put in separate little boxes, and that in order to apply it in conjunction with all the other subjects. And I think also to add to what you say, you find that in the orthopaedic wards in particular, your patients who have DT's and so on and so when you take your patients history and even in psychology when they take a psycho social history they need to be on the lookout for any other problems over and above the medical problems the patient is admitted with and therefore will know that

they need to give the patient Thiamine and you know the whole vitamin cocktail in order to um do something about it.
3 Um, um I also got worried last year OK um I also read that there um mustn't be um, um what you call it um

1 overlapping

3 Um, I also agree that there mustn't be overlapping with work but it's actually because um there is so high incidence of alcohol related things in society, that they take it totally out of the curriculum totally, as she said when we do the medication you just, there is so a lot of work at the time that there is not really a slot where you can do um, um

5 What we usually do is say for instance give a case scenario when you do the organic brain disorders and ask them to do the nursing management of a patient with DT's for instance um and that's how we cover substance abuse basically

2 Ehm, and the other we agree, 'nou het ek vergeet'

General laughter

2 I wanted to hook onto what T------ was saying in that in community we don't do the medical patient like in the ward but we do the community patient, we start with the family go into the further community and even further until government and this is how we look at this definition ----- (interruption by an announcement over a public address system) -------- and this that you mentioned and in that way we look at the patient.

6 Can I add on there The fact that when you do mal compliance with regard to pharmacology and why the patients are taking medicines that the factors of abuse or whatever may be covered but what we don't do as far as I know is stress specifically with regards to treatment the alcohol or the substance abuse resulting in the condition and treatment as part of the alcohol or abuse treatment for individual medical conditions. Because all (interruption by PA system) should be treated separately including what the medical condition may be, in an attempt to um, um

1 To keep it all integrated

2 Ja,ja

1 And prevent repetition

Silence

Moderator **Can you add to that is there anymore**

4 From what I have to do with 2nd, 3rd and 4th year in community I can see that it is integrated because I must retrieve from their previous knowledge.

1 Ja, but I don't know from the students point of view, from our point of view we can see the whole quite well I'm not sure the student actually experiences it as such.
Silence

Moderator Why do you say that

1 Because I notice a huge deficit, knowledge that we expect them to have because its been done and it's been covered and we expect them to transfer it to another discipline, well I find a huge gap

4 Well, my experience is different because I am in a fortunate position that I am in psych social sciences and that I also taught 3rd year nursing. And even while before that I helped with the curricula ting of the 3rd years, where they do nursing group studies. And to evaluate the students they can make a concerted effort and you know this is from a different perspective where they will actually include you know the psycho social history and you know that type of thing, and would make a point saying take note of the psychological history. An important thing to be aware of. I don't think it was a particular year

1 In 4th year for example you might do a patient round as an evaluation and then you definitely expect them to pick up you know medical, social history of the patients and be able to identify.

4 But, I think also the individual students because there some student no matter what you do some they will put it all into little boxes ---------

1 Ja,ja

4 -------- and then others draw it all together so beautifully

1 Yes, so it depends very much on the individual

Moderator Does anyone have anything to add

Silence

OK Can I summarise what we have discussed.
We basically looked at what is taught in substance abuse with regard to pharmacology
How it is taught
Where it is taught
Who teaches substance abuse and how learning is assessed
Have I mentioned everything

Nodding of heads and silence

Thanks for coming and for being so helpful