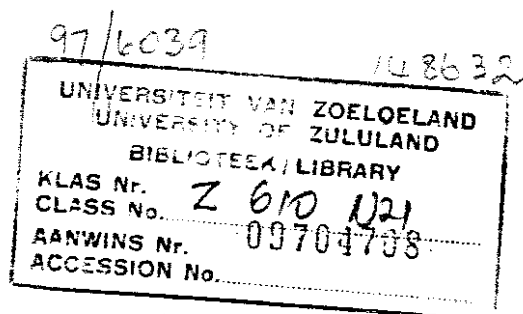




## **DEDICATION**

*This work is dedicated to the following:*

- \* *The communities where this study was undertaken.*
- \* *My colleagues in the Nursing Profession.*
- \* *My children Sbonelo, Nonhlanhla and Numpumelelo.*
- \* *My father Alson, and my late mother Lizzie.*
- \* *My late brother Prof. E.S. Mchumu for his encouragement and support.*
- \* *My late husband Mayor and my son Siza for love and support.*



**DECLARATION**

I declare that:

"A Health Education Model for schools in Region 'F' KwaZulu-Natal Province: is my own work and that all sources I have used or quoted have been indicated and acknowledged by means of complete references.

.....  
**D. NZIMAKWE**

**DURBAN  
FEBRUARY 1997**

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## ABSTRACT

The main aim of this study was to investigate the knowledge of, attitudes towards and practices with regard to the execution of school health education as found amongst school teachers, school nurses, school children and parents. This would help to determine the need for a "Health Education Model" for schools in Region 'F' of KwaZulu-Natal Province.

The study revealed that the nurses were unable to visit schools frequently due to a lack of resources such as transport facilities and manpower. The teachers were not trained to undertake health education and the curriculum did not meet the needs of learners. The school children were aware of needs in respect of school health education that were not met. parents expressed their concern regarding prevailing social problems such as drug abuse, alcoholism, teenage pregnancy, HIV and AIDS, rape and sexual abuse and the need for health education to try and reduce the incidence of these.

All four groups recommended a comprehensive approach to health education: for health education that would include all professionals, parents and children. They felt that a participatory approach would increase the responsibility of children and parents, which would improve the quality of school health education and reduce the incidence of preventable conditions among school children. A health education model entitled *The 'LAPPPNECT' Model* was designed. This model will facilitate Learning through active participation of pupils, parents, nurses, educators, communities and teachers.

## OPSOMMING

Die hoof doel van hierdie studie was om ondersoek in te stel onder onderwysers, skoolverpleegsters, leerlinge en ouers oor die kennis, houdings en praktyke ten opsigte van die lewering van skoolgesondheid opvoedingsdienste. Dit sal bydra tot die bepaling van wat die behoefte is vir 'n "Gesondheidsopvoedingsprogram" vir skole in Streek 'F' van die Provinsie KwaZulu-Natal.

'n Opvanggebied is afgebaken binne Streek 'F', bestaande uit stedelike-, buitestedelike en plattelandse gebiede. Sewe kringe binne die genoemde gebiede is gebruik vir die verkryging van data ten opsigte van onderwysers, leerlinge, ouers en die skoolomgewing.

'n Totaal van 18 skole bestaande uit laer, primêre, gemengde primêre en sekondêre of hoërskole uit elke kring is by die studie ingesluit.

Die studie het aan die lig gebring dat dit nie vir die verpleegsters moontlik was om skole gereeld te besoek nie weens 'n gebrek aan hulpbronne soos vervoer en mannekrag. Die onderwysers is nie opgelei om gesondheidsopvoeding te onderneem nie en die sillabus voldoen nie aan die behoeftes van die leerlinge nie. Die skoolkinders is bewus van die behoeftes vir 'n skoolgesondheidsprogram waaraan nie voldoen word nie. Ouers is bekommerd oor heersende sosiale probleme soos dwelmmisbruik, alkoholisme en tienerswangerskappe, HIV en VIGS verkragting en seksuele misbruik asook die noodsaaklikheid vir gesondheidsopvoeding ten einde die genoemde probleme aan te spreek.

Al vier die groepe het aanbeveel dat 'n omvattende benadering tot gesondheidsopvoeding gevolg word: een wat alle professies, ouers en kinders sal insluit. Hulle was van mening dat 'n deelnemende benadering die verantwoordelikheid van ouers en kinders sal aanmoedig te verbetering van die kwaliteit van skoolgesondheidsopvoeding voorkombare siektetoestande onder skool-kinders te verminder. 'n Gesondheidsopvoedingsmodel met die titel *Die 'LAPPPNECT' Model* is ontwerp. Hierdie model sal die leerproses deur middel van aktiewe deelname deur skoliers, ouers, verpleegsters, opvoeders, gemeenskappe en onderwysers in die hand werk.

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**CHAPTER 1**

**ORIENTATION TO THE STUDY**

# **CHAPTER 1**

## **OUTLINE TO THE STUDY**

Discussed in Chapter one of the study the introduction to the study, important concepts used in the study, as well as the outline of the final report.

### **INTRODUCTION**

Health is normally seen as a valued asset by individuals and communities. However, this is not always the case due to physical, psychological and social factors which undermine the health of the people and could create a false impression that in certain communities health is not considered to be all that valuable. It is the duty of the Government to provide health services for all people in the country. Legislation is promulgated to ensure that the health workers provide effective health services for the people, in accordance with the principles laid down.

Before 1994 the school health services were made available as a component of a comprehensive health system in South Africa. This posed a problem due to the differences in the quality and extent of these services for different racial groups. School health education had to be conducted in accordance with the compartmentalised regime of the National Party Government of the time, which meant that it had to be compartmentalised in relation to the House of Assembly for White Children, House of Representatives for Coloured children, House of Delegates for Indian children and the KwaZulu Department of Health for Black children. There was therefore disparity with regard to accountability, equity and acceptability of the Service. The compartmentalisation system also affected the school syllabi for health education.

The absence of a well-constructed model for health education for all children regardless of racial groups created a problem, especially in Black schools. A number of cases of ill-health have been reported among the Black under-privileged children. The researcher holds the view that if a health education model is constructed and utilised, it will serve as an agent for reaching the entire population of children. Therefore, adult behaviours such as smoking, drug addiction and harmful sexual practices will be prevented before they are well entrenched. Children of all racial groups will benefit equally from the proposed model aimed at unifying health education practices in KwaZulu-Natal.

## **BACKGROUND OF THE STUDY**

After 1994, alongside the democratic principles, there has been a great need for the reconstruction and unification of health services in South Africa. The researcher lives and works in KwaZulu-Natal Province, is consequently familiar with the health status of school children in the urban, peri-urban and rural settings and therefore wished to address the issue of ill-health among school children by means of improving health education.

According to the researcher's knowledge, children in this region are in a sense deprived of their right to health care, which is against the guiding principles of the National Health plan, for the Government of national unity (National Plan for South Africa, 1994:19). The present health education in this region is focused more on the adult population and, to a lesser degree on children in schools, and yet children are more at risk in respect of illnesses. It is clear that there are constraints in the provision of school health education in schools for Black children and the present school health education programmes do not reach the majority of the children. Hubble (1978), cited in Tones (1990:235) in support of children being the appropriate agents for health education, is of the view that many school

children are the products of broken homes, single parents, widows and widowers, unemployed parents, poverty and violence in their immediate environment, very large families, political unrest, aggression and hostility, homeless societies, neglect and underserved communities with regard to basic needs and facilities. This statement corresponds with the researcher's own experience and substantiates her search for better ways of providing health education for school children.

The people in the urban, peri-urban and rural areas of Region 'F' within the KwaZulu-Natal district often face violence, poverty, homelessness, floods and general lack of infrastructure, including deterioration of certain residential areas into informal settlements. They are exposed to bad weather conditions, outbreak of fires, and communicable diseases. Practically every home has a child that attends a nearby school. Such a child, as well as her family, may benefit from the school health education programme. It is therefore the duty of professionals to make health education available to school children, however, the children who cannot go to school are still at risk for ill-health.

School health education in Region 'F' is offered by professional nurses, staff nurses and health assistants. School health education is traditionally conducted by means of oral instruction. Traditionally, school health education is only focused on in children. The school children are passive recipients of health education with minimal involvement of parents. The recent changes in the health policy which emphasises community participation and primary health care makes it imperative that a participatory approach to school health education is implemented. This approach stresses the importance of child-to-child health education which includes active involvement of children in health education and which may result in the entire population of children being reached. If a large population of children is reached in this way, behaviours such as smoking, drug abuse

and harmful sexual practices are less likely to be initiated at this age.

The report of the Browne Commission, cited in Vlok (1992:61), states that health education should start at an early age so that children can grow up taking the responsibility for their health. Children are open to health education or any information regarding health and health-related problems at their particular age. Peer group health education should be encouraged, as well as school children educating parents and other family members at home. The importance of health education in the promotion of health should be emphasised. It is equally important to stress that people should take responsibility for their own health. They should be able to take informed decisions about their own health, and health education should be a team effort. Exploring the perceptions of school teachers on health education and the existing health programme in schools will assist in identifying the gaps in health education and in working towards closing these gaps by utilising the strategies agreed upon by the school teachers, nurses, school children and parents. Health personnel should ensure that health education is a key component of the health care system and school children should be a primary target for health education.

Knowledge of the perceptions of school teachers regarding health education in schools will help to identify the gaps in health education as well as the strengths and weaknesses of those currently involved in health education. Effective ways of conducting health education in schools become essential in respect of those children who cannot be exposed to health services at home.

## **MOTIVATION FOR THE STUDY**

The researcher was motivated by a number of factors to conduct the study. These factors are:

- The exposure the researcher had to the health problems of school children while working as a tutor and lecturer in regions 'H' predominantly rural and 'F' predominantly urban of KwaZulu-Natal Province. Conditions such as tuberculosis, home accidents, scabies, ringworm, bilharzia, physical and sexual abuse were frequently observed among school children.
- The researcher wishes to align the study with the report of the Browne Commission, cited in Vlok (1992:61), which states that health education should be a key component of the health care system and school children should be a prime target for health education.
- The disturbance of school health education programmes caused by staff being intimidated and assaulted and cars being hijacked.
- Lack of educational preparation of the teachers and resources for health education.
- Declaration of certain areas as no-go areas due to political reasons making it difficult for school nurses to reach schools. This makes it important for child-to-child and peer education to be implemented.
- Absence of a community-based and interdisciplinary programme for health education.

## **STATEMENT OF THE PROBLEM**

There is a need to introduce a school health education model that emphasises child-to-child and peer group education. This is necessitated by the following factors:

- \* Preventable diseases are still a problem in schools.
- \* School children in the community are not recognised as groups that can be actively involved in health education.
- \* There is still lack of coordination of all professionals and resources to conduct health education, including a well constructed model for school health education in this region.

This study is concerned with investigating the nature and quality of existing school health education in Region 'F' in the district of Durban, within the KwaZulu-Natal Province. It aims to construct a proposed model that is appropriate to schools in this region.

## **5 THE VALUE OF THE STUDY**

This study will result in the development of a health education model which will be appropriate for schools. Emerging from this model will be more effective ways of dealing with health problems by disease prevention through health education in schools. Its value can be related to previous studies done locally and internationally in this field. Nxumalo (1993) in her study which was conducted at Mahlabathini District of KwaZulu Natal identified 978 children with chronic suppurative otitis media: 9,2% of these children lost their hearing. In a study by the American Cancer Association the adolescents, parents and district administrators revealed that school health education is of equal, if not greater, importance compared to other subjects taught in schools. According to Tones and Robinson (1990:87) a school health curriculum can have significant effects on selected student outcomes, and is successful in improving health knowledge, attitudes and behaviours such as the illegal use of drugs. According to Tones and Robinson (1990:86) students' health related knowledge, positive attitudes

and healthy habits increase as years of health education increase. An effective school health programme can eliminate the impact of factors that can cause premature illness and death, namely heredity, environment, an ineffective health care delivery system and an unhealthy lifestyle. Kolbe (1990) cited in Tonesand Robinson (1990:84) confirms this statement by targeting behaviours in six areas as critical to reducing premature illness and death, viz nutrition, physical fitness, intentional and non-intentional injury, alcohol and other drug prevention, smoking and reproductive health. Irwin and Milestein (1986) cited in Nash, Thurston and Baly (1991:164) have established that lack of knowledge, among others, contributes to health debilitating behaviours, including some of those identified as critical to health behaviour or learning, such as development factors, self-concept, media, social interactions with peers and family, and lack of accessibility to health care. Therefore, this study investigated perceptions of school teachers, school nurses, school children and parents with the aim of identifying areas of need. It provides a plan of action that is participatory, decided on by all participants for developing adequate health knowledge and positive attitudes towards keeping healthy and preventing disease. Knowledge obtained by the researcher on school health education as perceived by the stakeholders should render valuable contributions towards improving school health education in the Durban district of KwaZulu-Natal.

## **IMPORTANCE OF THE STUDY**

- The study could provide curriculum developers with realistic inputs regarding skills to be acquired and improved for effective health education with regard to teachers, nurses, school children and parents.
- It determines professional competencies expected of school nurses

and school teachers.

- The study is valuable in that its findings provide quantitative data to serve as a scientific base from which to direct discussions related to "A health education model for schools in Region 'F' of KwaZulu-Natal Province.
- The findings of this study provide a platform for future studies and may also be used to design health education models for schools in other regions and provinces of this country, as well as in other countries.

## **AIMS OF THE STUDY AND RESEARCH QUESTIONS**

### **Aims of the study**

The aim of the study is to make health education participatory through the active involvement of the teachers, nurses, school children, communities and other professionals. This can be made possible by empowering these stakeholders with the knowledge and skills required to conduct health education through the utilisation of a model for school health education in region 'F'. This should reduce the incidence of preventable diseases and behaviour disorders.

### **Assumptions**

1. It is assumed that: The present school health education programme appears not to meet the needs of school children and parents in that it excludes members of the multi-disciplinary team and does not allow for joint consultation and decision-making.
2. The present school health education programme is not accessible

and acceptable to the children and parents while the frequency with which school health education is conducted by teachers and school nurses is questionable.

3. There is no model for school health education that is multidisciplinary, community-based and participatory.

## **RESEARCH QUESTIONS**

- . Who is involved in teaching health education in schools?
- . What is taught in health education and who is a co-ordinator for school health education?
- . What is the level of health knowledge and relative health status of children attending schools in the Durban district?

## **OBJECTIVES OF THE STUDY**

The objectives of the study were to:

- . To determine perceptions of school teachers, school nurses, children and parents about health education in schools and health problems of school children.
- . To ascertain if there was diversity in rendering school health education among grades 1-4, 5-7 and 8-12.
- . mobilise the different stakeholders in a joint understanding of school health education through workshops and training;

construct a multi-disciplinary and participatory model for school health education in region 'F' of the KwaZulu-Natal Province which emphasises child-to-child and peer group education.

## DEFINITIONS

De Haan (1994:7) defines health education as a process directed at changing people's attitude and influencing their behaviour in health-related matters. The concept is further defined by Stanhope and Lancaster (1992:181) as an approach for teaching patients and their families to deal with past, present and future health problems. In its broadest sense, health education is described by Cookfair (1992:164) as concerning all experiences of an individual, group or community that influence beliefs, attitudes and behaviour with respect to health as well as the processes and efforts of producing change when it is necessary for optimum health.

### Operational Definition

Dennil, King, Lock and Swanepoel (1995:86) define health education as a process of influencing behaviour and producing changes in knowledge, attitudes, and skills required to maintain and improve health by use of through the implementation of the educational process. Health education therefore assists people to facilitate changes towards more helpful behaviours. In support of these authors, Ewles and Simnet (1987:11) view health education as a tool which enables people to take more control of their own health. They further state that without education for health knowledge and understanding there can be no informed decisions and actions to promote health. The study aims at empowering people with knowledge so that they can become actively involved in health education. For the purposes of this study, health education will be viewed as an active teaching and learning situation that has been planned by the people

responsible for the teaching of health education, with the recipients participating in the process. Health education is therefore seen as the process of empowering the stakeholders with knowledge and skills, not only for the adoption of healthy lifestyles, but also to disseminate the acquired knowledge to other people. Hence the model of health education in the Durban district will make provisions for adult-to-adult education and child-to-child education.

### Scope and Limitation of the Study

The study investigated the perceptions of school teachers, school nurses, school children and parents of children in schools formerly designated as 'Black schools' within region 'F' of the KwaZulu-Natal Province. The study also investigated only children that were presently attending school and their parents and excluded children that did not attend school and their parents.

### **ORGANIZATION OF THE REPORT**

The report of this study is organised in chapters as follows:

**Chapter One** presents an introduction and provides a background for the study. It includes the introduction and motivation for the study, statement of the problem, assumptions underlying the study, research questions and the value of the study. It provides definitions of terms used in the study, and finally the layout of the rest of the chapters of the research.

**Chapter Two** reviews relevant texts, articles and studies undertaken by other researchers pertaining to school health education, health education in general and models used for health education.

**Chapter Three** presents the theoretical framework on which the study is based, namely, King's theory of goal attainment of community health nursing science.

**Chapter Four** consists of two sections. Section one describes the research methodology, including explanation of the research design, sample and sampling methods, research instruments and ethical implications. Section two provides a description of data collection from school teachers, school nurses, school children and parents.

**Chapter Five** discusses data analysis and interpretation of data collected from the sample. Data is presented in the form of tables, figures and graphs followed by the necessary explanations and interpretations and by a presentation of the findings.

**Chapter Six** presents three sections. The first discusses a **model** in general, **model construction** referring to models that have been used before. It also presents **details** of how the model for school health education in Region 'F' of KwaZulu-Natal Province was constructed and how it acquired its name '**Lappnect Model**': 'Lappnect' being the acronym for **Learning through active participation of pupils, parents, nurses education and training of communities and teachers**.

The second section describes how planning was undertaken to **prepare for participatory health education** including the official launch of the model.

Section three of this chapter deals with the evaluation of the trial run of the model and educational preparation of personnel, children and parents for

child-to-child and peer education.

**Chapter Seven** presents a summary of the research, conclusions drawn from the findings and recommendations made for future health education in schools and for future research.

**CHAPTER 2**

**LITERATURE REVIEW**

## **CHAPTER 2**

### **LITERATURE REVIEW**

Literature reviewed on health education conducted in schools reveal that there has been a lack of effective health education in schools leading to the high incidence of preventable conditions affecting school children. The present state of school health education is accompanied by lack of involvement of parents and children. The latter are passive recipients of health education. This chapter consists of an exposition of information gathered from published and unpublished literature.

An attempt was made by the researcher to consult both recent and not so recent local, regional, national and international documents and publications, in particular those of the World Health Organisation (WHO), the Department of National Health and Population Development and the Health Systems Trust of South Africa. This chapter is organised around the following subtopics:

- I Health Education
- II School Health Education
- III Organisation of School Health Services
- IV Historical Development of School Health Education

#### **I HEALTH EDUCATION BY PARENT**

Health Education is one of the essential elements of health care which emphasises health promotion, maintenance and restoration of health. The researcher's concern is that school children are a group at risk for many health problems and they may not be aware of activities that promote

health. They need health awareness and training quite early in life. The researcher in this study will discuss aspects of health education, such as definition of the concept by different authors, principles and aims, approaches and factors responsible for the success of health education.

### **Definition of the Concept Health Education**

According to the World Health Organisation (WHO), cited in Tones and Robinson (1990:6), "health education is an active learning process aimed at health promotion". Ewles and Simnet (1987:11) define health education as a tool which enables people to take more control over their own health and other factors which affect their health. This facilitates autonomy health promotion, which also supports the definition by the WHO. According to Murray and Chavunduka, (1986:156) which views "health education as a process of positively influencing, changing or reinforcing people's health knowledge, attitudes and practices using educational processes, consumer participation, motivation, facilitating helping methods and techniques. The authors also pay special attention to the total setting of the consumer to bring about positive health behaviour. This definition pays special attention to the empowering nature of health education which is associated with acquisition of knowledge and positive change of behaviour, that is behaviour that promotes health.

Health education is also viewed by Green, cited in Edelman and Mandle (1990:181), as "a combination of learning experiences designed to facilitate voluntary adaptations of behaviour conducive to health". This view also complements the definitions by the authors discussed in this study.

Definitions by these authors articulate their beliefs on the use of teaching learning strategies, voluntary acceptance of learning, empowerment of

people with knowledge and skills, as well as acquisition of healthy habits, which contribute to health promotion.

### **Aims of Health Education**

Various authors discuss aims of health education according to their beliefs about health education. The aim of health education is to intervene in the process of development and change, to maintain positive health behaviour or to interpret a behaviour that predisposes a person to health risks. According to Ewles and Simnet (1987:11) "health education should be seen to change the environment and to facilitate the choice of healthier choices.

The following aims of health education are enumerated by De Haan (1994:17). Health education attempts:

- To place health high in the individual's value system.
- To teach people the principles of healthy living which include principles of mental and social health.
- To assist people to deal with their own health problems where possible to enable providing them with necessary knowledge and skills.
- To give people information concerning the health services and to encourage them to make full use of the services which are available.
- To give them the necessary knowledge about the diseases which are common in their community in order that they may take appropriate steps to prevent their occurrence or if they do occur to seek medical advice.

- To assist individuals and communities to take responsibility for their own health.

The views the different authors have about health education serve as a basis for this school health education study. Aspects that have been emphasised by the authors such as empowerment, decision-making, acquisition of knowledge and skills as well as change of behaviour, are essential in school health education.

### **The Principles of Health Education**

It is important for health educators to consider the principles of health education during planning and implementation of health education programmes, as this knowledge could facilitate acceptance and success of the programmes. Different authors have identified these principles.

#### **(i) The Principle of Cumulative Learning**

Cumulative learning refers to increasing or growing knowledge about health through exposure to health knowledge and thus adding knowledge. Green and Anderson (1986:77) identify this principle and confirm that the behaviour is a long-term complex synthesis, of personal and cultural experience, social, economic and environmental circumstances including genetic inheritance. To influence change in behaviour, health education needs to be tailored according to resources and circumstances. This view is further supported by Stanhope and Lancaster (1992:181) who state that individuals accumulate a growing supply of experience that serve as resources for their own learning. The study focuses on school children who are still growing and have limited experience on health issues. Health education programmes should be beneficial if they

are made available for this age group.

(ii) **The Principle of Participation**

The principle of participation is relevant for this study as it seeks to involve school children and their parents in health education programmes. To participate is to share or take part in an activity. South Africa as a democratic country is now emphasising this principle, especially in health education as this could contribute to people being more responsible for their own health, thus promoting health and preventing diseases, which would be cost effective.

According to Green and Anderson (1986:261) "success of health education programme i.e. its acceptance by consumers of health care, staff members and professionals concerned depends on the involvement of all these members during planning phase up to implementation of the programme". Warner (1982) cited in Tones and Robinson (1990:236) view this concept as a bottom up approach involving people at grassroots to promote self-help and self-reliance. Involving teachers, nurses, school children, parents and professionals in this study was based on principle of participation.

(iii) **The Principle of Diversity**

Diversity refers to the complete difference or unlikeness of the recipients of health education. Green and Anderson (1986:79) state that the principle of diversity implies that educational methods should vary according to the audiences, characteristics and circumstances. These authors further maintain that a variety of learning opportunities must be provided to assure that different people are exposed to the methods that are most likely to facilitate their

decisions relating to health. This principle is more appropriate for the study as school children are creative and have enquiring minds.

### **The Basic reasons for Health Education**

The basic reason for health education is to acquire health knowledge and change attitudes. According to Ewles and Simnet (1987:32) "giving people health knowledge is a fundamental part of health education". Health education should conscientise people continuously on health matters, and the following reasons are advanced by Tones and Robinson (1990:4):

- Local communities should be taught health habits and how to adopt these.
- Anyone who has knowledge and skills of health education can teach others for example children taught at school can teach their siblings and parents at home. This statement is supported by Nzimakwe (1996) cited in Nzimande (1996:97) where emphasis is placed on person-to-person education and the fact that children should be targeted for health education.

The researcher in this study aims at empowering all stakeholders of school health education with knowledge and skills for health promotion and disease prevention.

### **Symbiosis of Health Education and Health Promotion**

The symbiosis of health education and health promotion refers to the co-existence of both. Health education and health promotion are associated but they are not interchangeable. According to the World Health Organisation, cited in Tones and Robinson (1990:121), "health promotion is a unifying concept to those who recognise the need for change in the

ways and conditions of living in order to promote health". In support of this statement, Tones (1990:134) states that "education for health is an essential prerequisite in all health promotion programmes and that the relationship between health education and the process of building healthy policy for health promotion is symbiotic". This study focuses on health education to achieve health promotion which is cheaper than treating preventable conditions.

### **Approaches to Health Education**

Approaches to health education is the approach that empowers children with knowledge and skills so that they can be involved in peer group teaching. According to Lehman (1978) cited in Young and Durston (1992:11) a value clarification approach "you centred" should be utilised as it is based upon the here and now reality. The author further states that the "you centred" approach can assist the school children in the development of life skills to keep healthy and help others to keep healthy. Young and Durston (1992:105) support this approach and views child-to-child health education as a programme that has produced materials especially in health education to help older children to look after the younger brothers and sisters. The authors further state that children can be very skilled in transferring school knowledge to their homes so that the health educator should try to bring conflicting ideas to the open so that they can be discussed. The authors further suggested school visits by parents during special health education days. The present study will focus on the ideas of these authors and explore the possibility of implementing the approach.

### **Theories of Learning**

According to Stanhope and Lancaster (1992:123) the study of learning is essential for a community health nurse for promoting health of individuals,

families and communities. These authors further define learning as a change in behaviour that persists over time, is practised and is repeatedly reinforced. The community health nurse therefore uses the conditioning theories by famous behaviourists such as Pavlov, Thorndike and Skinner. This section of the study explores the principles of learning with specific reference to health education within the background of these conditioning theories.

### **Learning Theories in Health Education**

According to Spicer, cited in Lancaster (1992:123), "for health education to be effective, the nurse should engage the person in learning. The author further asserts that a change in behaviour in the direction intended by the health educator is learning. Cookfair (1991:96) confirms this statement in the view that learning is said to have occurred when a person becomes capable of doing something which he/she could not do before. Stanton, cited in Cookfair (1991:136) also describes client teaching as an act in which the health educator becomes involved in assisting clients to become active members of the health team and make informed choices regarding the quality of their life. This idea views learning as enabling the clients to acquire knowledge and behaviour that may help them live a longer and fuller life to reach an optimum level. The researcher in this study seeks to find ways in which clients can become involved in decision-making concerning their health and can become members of the multidisciplinary team.

### **Application of Learning Theories in Health Education**

A school health nurse, teacher, any community member or health care worker who volunteers to teach health education in schools should be familiar with different types of learning to make health education effective.

The researcher in this study explored the work of various authors on theories of learning, most of whom had a choice of Bloom's Taxonomy of learning and applied these in discussion of learning that takes place in health education. According to Cookfair (1991:139), Stanhope and Lancaster (1992:183), learning consists of cognitive learning, affective and psychomotor learning. These domains will be dealt with carefully in this study because of the developmental stage of the target population, in order to make teaching more meaningful and learning to take place.

### **Cognitive Domain**

The cognitive domain view of learning describes how learning occurs during the various developmental stages. The cognitive domain consists of six levels of rising complexity of cognitive or intellectual ability, Cookfair (1991:138).

Firstly cognitive domain deals with "recall" or recognition of knowledge and the development of intellectual abilities. According to Bloom (1969) cited in Stanhope and Lancaster (1992:183) the cognitive domain is divided into a hierarchical classification which Bloom refers to as Taxonomy. Bloom further asserts that mastery of behaviour and skills occur in order of difficulty namely knowledge, comprehension, application, analysis, synthesis and evaluation. The researcher found this view of learning appropriate for this study and explored the Bloom's Taxonomy.

### **COGNITIVE DOMAIN LEVELS OF MASTERY**

The cognitive domain levels identified by Bloom (1969:66) include the following:

### **Knowledge**

Knowledge is the **first** level of cognitive learning and it consists of recalling facts, methods and procedures.

### **Comprehension**

Comprehension is the **second** level of cognitive learning. It combines recall and understanding to grasp the meaning of information.

### **Application**

Application is the **third** level of cognitive learning and consists of utilisation of information in new, specific and concrete situations.

### **Analysis**

Analysis is the **fourth** level of cognitive learning and consists of distinguishing between parts of information and understanding relationships among them.

### **Synthesis**

Synthesis refers to the **fifth** level of cognitive learning. It is concerned with putting the parts together in a unified whole.

### **Evaluation**

Evaluation is the **sixth** level of cognitive learning in which the value of ideas, procedures and methods are judged by using appropriate criteria.

The researcher in this study regards discussion of the levels of cognitive domain as important as health education has to be planned considering the age, experience and maturity so that it is appropriate. Children are the target population for this study and are undergoing development of intellectual ability.

## **AFFECTIVE DOMAIN**

According to Stanhope and Lancaster (1992:183) affective domain describes changes in attitudes, values and appreciation. Bloom and Spradley, cited in Cookfair (1991:140), regard effective learning as important in health education because the learners respond with various degrees of involvement and commitment. The authors further identify the following levels of affective domain namely:

**First Level**            Is concerned with receptivity, listening, attention and showing awareness of what is going on.

**Second Level**        At the second level the learner is responsive, showing some willingness to read or respond to what is being taught. The information is accepted and the client may make a commitment to adopting the information.

**Third Level**            At the third level the client internalises an idea or value. The information that is learned is put into practice.

**Fourth Level**         The fourth level and the last level consists of adoption. The learner now takes the information learned and adopts a behaviour consistent with what was taught.

Affective domain is important for this study as the researcher tries to identify barriers to health education which cause the learners to fail to put into

practice or adopt the information that was learned. Identification of such problems may lead to joint planning and result in health education programmes which will be accepted and which will contribute to adoption of behaviour that is consistent with what was taught.

## **PSYCHOMOTOR DOMAIN**

Psychomotor domain is viewed by Cookfair (1991:142) and Stanhope and Lancaster (1992:183) as including the performance of skills that acquire neuro-muscular coordination. The authors identify three conditions that must be met before psychomotor learning occurs namely:

The learner must have the necessary ability.

- He/She must have the sensory image of how to carry out the skill and
- He/She must have the opportunity to practice the learning.

The three learning domains need to be taken into consideration for effective health education.

### **The Conditions for Learning**

The prerequisites for learning refer to certain criteria that need to be met for learning to take place and to be effective.

Learning should address a felt need for the material to be meaningful to the learner.

- The material to be learned must be related to what the learner

already knows and allow for learner participation.

- In learning, the environment should be characterised by physical comfort, mutual trust and respect, mutual helpfulness, freedom of expression and acceptance of differences.
- The learner should accept a share of the responsibility for planning and operating a learning experience, to have a feeling of commitment towards it and participate actively in the learning process.
- The learners should have a sense of progress towards their goals.

The prerequisites mentioned will assist the researcher in data collection. The researcher will review the quality and quantity of health education including involvement or participation in planning, decision-making and implementation of health education programmes.

## **BARRIERS TO EFFECTIVE HEALTH EDUCATION**

The barriers to effective health education refer to the obstacles that hinder health education. Awareness of these obstacles assist the health educator to develop effective health education skills. According to Stanhope and Lancaster (1992:185) and Cookfair (1991:140) including Ewles and Simnet (1987:98) the following barriers to health education are identified, teacher barriers, learner and environmental barriers.

### **Teacher Barriers**

Teacher barriers include failure to identify the learning need, negative attitude, attempt to teach too much, lack of effective communication skills, lack of confidence and impatience with the learners, use of language and concepts which are not clearly understood by the learners, and difficult teaching methods and teaching aids.

### **Learning Barriers**

Learner barriers include lack of motivation to learn, fear of what might be learned and the implications of the new information and unpreparedness to learn at that time.

### **Environmental Barriers**

The environmental barriers include noise, excessive heat or cold in the room, lack of privacy when sensitive information is being presented and interruptions from family members, health care providers and other clients. Time constraints can be a barrier when a client has to report to work or do something after the health education session.

The researcher in this study carefully studied the barriers to effective health education so that these could be incorporated in the programmes for training. Such knowledge and practice should be a contribution to effective health education in schools which this study seeks to achieve.

## **II SCHOOL HEALTH EDUCATION**

### **Introduction**

School health education has become very important in Region 'F' of KwaZulu-Natal Province due to exposure of the children to preventable diseases and all forms of abuse, including sexual abuse and rape. This statement is supported by Vlok (1996:436) who asserts that the incidence of the latter in South Africa for children and adults is 150 000 annually.

School health education is conducted at school as a vehicle to reach children at school. This education can be conducted at school by an educator who may be a nurse, teacher or any professional. This section of literature review explores important aspects of school health education such as its objectives, content, method, techniques, reasons or relevance of school health education.

### **OBJECTIVES OF SCHOOL HEALTH EDUCATION**

The objectives of school health education include:

Health promotion and disease prevention.

- Empowerment of children and communities to make them take full responsibility for their health.
  
- Provision of knowledge and skills that will be passed to families, friends and children who are not attending school.

### **Content for School Health Education**

The content for school health education refers to what health education in

schools entail. The content for school health education should be chosen considering the age group and experience of the group. In support of this statement, Young and Durston (1992:60) state that teaching about sex may be embarrassing to children as they often use or invent their own words to describe their sex organs. Vlok (1980:643) also states that problems relevant to adolescence should be discussed with them such as teenage pregnancy and teenage contraception. In this way the content may increase awareness or improve attention span and change or reinforce positive behaviour.

### **Methods for School Health Education**

The methods used for school health education must be relevant because of the following assumptions about learning abilities of children by Nzimakwe (1996) cited in Nzimande (1996:98) children especially in primary schools, can be taught by older children. The statement is further supported by Young and Durston (1992:96) who suggests that information should be given under useful background knowledge and information should be discussed by the group. These authors further state that children do not only learn from teachers but from their homes, neighbourhoods and from the way that other children and adults behave. This is called "hidden learning" and should be considered in planning health education programmes for children.

Young and Durston (1992:97) also suggest that the use of health incidents for teaching children should have a direct and immediate impact. Incidents such as identifying a child with lice during health inspection should lead to teaching about personal hygiene, that is washing of children's bodies, their hair and nails, including washing and ironing their clothes. This is what these authors call incidental learning.

### **Useful Technique for Health Education**

Planning health education in schools should include consideration of appropriate techniques that can be used to facilitate the learning process and adoption of positive health behaviours. This statement is also supported by Young and Durston (1992:98) who discussed techniques such as story-telling, demonstration, songs, snakes and ladders, pictures and puppets, including toys for teaching younger children.

### **Reasons for relevance of School Health Education**

Health education is important in schools because it should address all problems which the child is exposed to in his/her immediate environment or problems that are affecting the child directly. Health education should also eliminate problems by promoting awareness of behaviours which can lead to problems, and suggest positive behaviours which promote health and can be reinforced. According to Nzimakwe (1996) cited in Nzimande (1996:99) school education is relevant and appropriate for the following reasons which are based on certain characteristics found in children:

Children are creative and dynamic and have a reliable attitude.

- Children can also work consistently and do not easily give up.
- They are cooperative and become mutually involved in a project.
- Children are responsible individuals who may be thorough and accurate, therefore they need good guidance and support.
- Children gain more from a learning situation. They are enthusiastic and have an honest interest in the content of the text book or effort

of the teacher.

- Children become actively involved in a project because they are willing to learn from mistakes.

### **Health problems found in school children**

School health education is relevant because of illnesses and conditions which may affect children at school-going age. According to Vlok (1992:622) health problems may affect children at various stages of development. The younger child may have learning problems causing anger, discouragement and emotional problems which may cause underachievement and school phobia.

Some health problems of adolescence include teenage pregnancy, drug and alcohol abuse as well as suicide. For the present study the researcher seeks to identify the perceptions of the stakeholders, particularly the school children, regarding the content, methods and techniques of health education so that it could be made relevant to this age group and encourage active involvement. During future plans for school health education, input from school children should be given a priority.

### **Policy for School Health Education**

The school Health services in Region 'F' of KwaZulu-Natal Province were run separately therefore the unifying factor was a policy for control of school health services (Natal Provincial Administration), in Annexure 3.1. The policy spells out the objectives of the school health services, and the proposed workload for a school health nurse, i.e. nurse-pupil ratio of fifty (50) pupils for health examination and eighty (80) pupils for health

screening.

The policy further stipulates the target groups for full health examination as follows:

Pre-primary schools, particularly those attached to schools, grade II, grade VII and special schools. The act further stipulates that screening procedures shall include visual and hearing assessment.

The policy also incorporates certain practice acts such as:

The Education and Training Act of 1979, the new Health Act of 1994, the Nursing Act No 50 of 1978 as amended, the Child Care Act of 1983, the Special School Act, the Public Health Act No 36 of 1919 and the Public Service Act of 1994. The policy document appears as an annexure 3.2 in the study.

There are no provisions made for school health education in the policy document which was an omission that might have contributed to the lowering of standard of school health education. The policy document in future will have to consider school health education.

## **SCHOOL HEALTH SERVICES IN SOUTH AFRICA**

School health services have always been provided by the Government although it was not accessible to populations that were peri-urban and rural. According to De Haan (1994:4) the homeland governments were introduced in 1970 and school health services became the responsibility of these states through their Health Departments. The homelands included the TVBC states that is Transkei, Bophuthatswana, Venda and Ciskei.

KwaZulu had its own department of health and a Minister of Health including a separate budget for health although it was not a completely independent state.

### **III ORGANISATION OF SCHOOL HEALTH SERVICES AND SCHOOL HEALTH EDUCATION IN REGION 'F' OF KWAZULU-NATAL PROVINCE**

#### **Introduction**

Organisation is considered to be a tool for the smooth running of a service. It is necessary that organisation of school health services be discussed in this chapter to uncover what the Province has done and is doing to try and maintain order in the running of school health services.

The researcher in this study explored a few definitions for organisation to be able to facilitate further discussions of the subject. Organisation refers to grouping, arranging and coordinating parts of a whole. According to Hein and Nicholson (1986:353) organisation is a logical process which involves defining the agencies mission or objectives, establishing policies and plans, clarifying activities necessary to meet the objectives and organising the activities for best utilisation of human and material resources. The process of exploring the organisation of school health services and school health education is done against the background of the Hein and Nicholson (1986:356) definition which gives clarity of what areas need to be looked into in the organisation process.

It is necessary to note that organisation of School Health Services is discussed in this study because every country has its way of organising which is specific and peculiar.

School Health services are only part of the health services and have been coordinated and controlled under the auspices of the Department of Health.

The school health education in the province remains compartmentalised among different racial groups until 1994 although attempts to unify the services are being made. The apartheid regime emphasised racial differences in allocation of resources which were not accessible to the poor and which made it more difficult to share the resources. This statement is supported by Vlok (1991:433) who states that school services consists of preventive promotive and personal service rendered by the Department of Health Services and Welfare and for the Department of Education and Culture of three houses of the Tricameral parliament for White, Coloured and Indian populations. The school health services for Black children were under the control of the Department of Health and the Department of Education and Culture.

### **THE CONCEPT OF OWN HOUSE AND SCHOOL HEALTH SERVICES**

According to the new constitution Act cited in De Haan (1994:5) medical services at schools was peculiar to groups' own affairs and fell under that group's own house. The implementation of this clause resulted in the following:

- White schools belonged to the House of Assembly
- Coloured schools were controlled by the House of Representatives and
- Indian schools were under control of the House of Delegates.

The Black schools in the former homeland states had health services organised independently by the Homeland government through a minister

of health and a separate budget for that State, except KwaZulu which was not independent but a self-governing State.

### **Progress made by these Houses**

Although the school health services for different groups were controlled by different bodies, the procedures were standardised. The homeland provided school health education through a comprehensive health system. A system described by Dr Gilliland, (1984:9) as being one which provides the greatest number of people with maximum health benefits at least cost. Progress was made as school health education was taught in schools. It is within the scope of this study to evaluate how these services were provided from exploring the perceptions of the stakeholders.

### **OBJECTIVES OF SCHOOL HEALTH SERVICES**

The different institutions providing school health services set objectives for the services. Such objectives were slightly different for Black schools. According to Vlok (1991:314) the objectives for White schools included promotion of health prevention physical and psychological problems. Support and guidance of students and parents was emphasised.

For Black schools guidance and support of school children and parents was excluded and no emphasis was made on psychological problems in schools which black children needed most while this was emphasised in children of other racial groups.

The researcher in this study explored the perceptions to the teachers, school children and parents including nurses and performed a situational analysis to try and establish if these objectives were achieved and how the stakeholders felt about the school health education.

### **Functions of a School health nurse**

Although the objectives of school health services had slight differences, the functions of the school nurse were the same for all population groups. This statement is confirmed by De Haan (1994:115) who states that school health nurses working among different populations may be responsible to different bodies, but their functions are similar. The author further enumerates the functions of a school health nurse as follows:

- The promotion of positive health and prevention of illness.
- The early detection of mental or physical abnormalities or defects.
- The prompt referral of such conditions to the appropriate agencies for further investigation or treatment.
- Health appraisal through screening procedures and assisting with medical examination.

### **Health assessment and keeping records for the following:**

- Weight and height, eyesight and hearing.
- Noting abnormalities and reporting.
- Carrying out home visits for pupils who have been found to have health problems.
- Working in close cooperation with parents, teachers and all other

members of the health team.

Active involvement in health education in order to promote health and prevent disease.

### **School Health Services and School Health Education for schools in urban, peri-urban and rural areas.**

#### **Urban Areas**

School health services in the urban areas have been organised by relevant houses for different racial groups namely the White, Coloured and Indians. Schools are basically found in the urban areas. A few Black schools in the urban areas such as locations under the jurisdiction of municipal and Town Councils were also controlled by the Department of Education and Training.

#### **Rural Areas**

According to Memela (1996) (interview) school health services in the rural areas are under the control of the former KwaZulu Department of Health. There are however some locations for Blacks which may be categorised as "urban" which have schools under the control of the former KwaZulu Department of Health. To mention a few of these locations they are Umlazi, KwaMashu and KwaNdengezi.

According to Shabangu (1996) (interview) the Department of Education and training is responsible for the erection and control of farm schools in KwaZulu-Natal. School health services in these farm schools is provided by the nearest city council. This statement is supported by Memela (1996) (interview) who stated that the list of such farm schools is handed over by the Department of Education to the City Council for provision of school

health services in these areas.

### **The Peri-Urban areas**

The schools in the peri-urban areas are both under the former Department of Education and Training and the former Department of Education and Culture. The school health services in these areas are also controlled by City Health Department and the then KwaZulu Department of Health.

The catchment area for this study includes areas in the urban, peri-urban and rural settings. The areas designated as peri-urban areas such as Mariannhill and Inanda are controlled by the City Health Department. Folweni area is peri-urban and should be served by the local regional hospital Prince Mshiyeni. According to Badat (1996) (interview) peri-urban areas could not be served by Prince Mshiyeni school health services. A special arrangement was made with Bhekimpilo trust to conduct school Health Services in these areas. Bhekimpilo Trust is a non-governmental organisation committed to provision of primary health care in underserved areas. The trust has erected health units (clinics) within the grounds of some of the schools which are purely centres for health promotion and disease prevention.

This section of literature review outlines what has been done in school health services, some of which still continues. It is within the scope of this study to determine what is desirable, in order to carry over the unification of school health services and to determine what is undesirable.

## **HISTORICAL DEVELOPMENT OF SCHOOL HEALTH EDUCATION IN SOUTH AFRICA**

The history of school health education in South Africa becomes important for this study in order to know the past, the present and predict the future. Within the historical background of school health services, organisation is discussed because it is affected by legislation of that particular country. The researcher therefore in this section of literature review will discuss the history and organisation of school health services concurrently. The researcher in this section of work discusses the history of school health services in the KwaZulu-Natal Province, but because their service originated from other provinces of South Africa, this will be mentioned.

### **SCHOOL NURSING SERVICES IN SOUTH AFRICA**

The school nursing services were initiated as early as the beginning of the nineteenth century in South Africa. School nursing services like any practice of nursing was controlled by laws of this country, and the changes that took place in the health system as a whole.

#### **Origins of School Health Services in South Africa**

The school health services started in the Transvaal as early as the beginning of the nineteenth century. According to Searle (1965:316) the provincial administrations were responsible for the health of the children in schools of primary and secondary education. They undertook medical health inspection. According to Searle (1965:315) Dr Louis Leipoldt was appointed and became the first medical inspector in South Africa. This appointment took place in 1914 and was effected by the Transvaal Education Department. The author further states that "the individual

examination of children had not even been considered and the assistance of a trained nurse to prepare school children for such examination had not been contemplated".

The school medical services then started in the Transvaal where there were 95-thousand white and black children in two thousand schools in this province.

It is said that the pioneers of school health services worked under difficult conditions such as poor roads and other systems of communication, unreliable transport and outbreak of malaria.

### **Appointment of a school nurse in South Africa**

During this time, training for the nurses was not yet organised in South Africa. Miss Frances Hassal from London Hospital was appointed the first school nurse in South Africa in 1914. She was dedicated in her work and worked under difficult conditions of poverty with rural families. She dealt with chronic ill-health of the children in schools.

School nursing spread from the Transvaal to other provinces as follows: School nurses were appointed in Natal in 1916 for whites in the Cape in 1918, and in Orange Free State in 1920. School nursing services then developed and by 1965, there were 80 school nurses assisting with school medical inspections, doing home visits and serving in hostels where there were outbreaks of communicable diseases. These nurses served in school clinics, dental clinics, child guidance clinics and Bilharzia Centres (Searle, (1965:320)).

The school nurses worked under the direction of medical inspectors of

schools and such staff was attached to various Education Departments up to 1960.

### **School nursing services in KwaZulu-Natal**

School health services started in the white schools and were only introduced in Coloured and Indian schools in the late 1950s, Whites 1916 and Blacks in 1950. These services were controlled by the Department of Education initially and in 1974 the Department of Health under Natal Provincial Administration became responsible for school health services except for the white population, which remained with the Department of Education.

From the 1960s school health services for the then Black population were provided by the City Councils. In the homelands it started with the introduction of Primary Health Care in 1978 Chetty (1997) (interview). According to De Haan (1994:9) school health is a component of primary health care.

### **Local Authorities**

The local authorities, City Health Department and Department of National Health and Population Development provided immunization for children in schools except in KwaZulu where it was done by the school nurses.

In 1994 the Democratization of the country resulted in attempts to unify the school health services by the institutions providing the school health services. The school health services are now under the control of KwaZulu-Natal Provincial Administration. Although the school health services for

different groups were controlled by different bodies the procedures were standardised. The Homeland of KwaZulu provided school health education through a comprehensive health system. This system is described by Dr Gilliland (1984) cited in De Haan (1994:19) as being one which provides the greatest number of people with maximum health benefits at least cost.

Progress was made as school health education was taught in schools, and a separate school health education policy for KwaZulu was constructed and it appears in annexure 3.2.

### **Functions of a School Health Nurse**

Although the objectives of school health services have slight differences, the functions of the school nurses were the same for all population groups. This statement is confirmed by De Haan (1994:11) who states that while school health nurses working among different populations may be responsible to different bodies, their functions are similar. The author further enumerates the function of a school nurse as follows:

- The promotion of positive health and prevention of illness.
- The early detection of mental or physical abnormalities or defects.
- The prompt referral of such conditions to the appropriate agencies for further investigation or treatment.
- Health appraisal through screening procedures and assisting with medical examination.
- Health assessment and keeping records for weight and height, eyesight and hearing.

- Noting abnormalities and reporting.
- Working in close cooperation with parents, teachers and all other members of the health team.
- Active involvement in health education in order to promote health and prevent disease De Haan (1994:12).

## **HISTORY OF SCHOOL HEALTH EDUCATION IN OTHER COUNTRIES**

According to Hanlon and Picket (1984:155), School Health Education has a history which dates back to 1914 when the first Bureau of Health Education was formed in the New York city. School Health Education spread throughout the country. The authors further state that by 1990 States or Provinces were required to provide comprehensive School Health Education at elementary and secondary levels including nutrition education.

According to Stanhope and Lancaster (1992:710) in the early 1900s the first nursing director to look into the health of school children was Lillian Ward. Medical inspections in schools were conducted by the doctor, but she was alarmed by the number of children that were excluded from school because of trachoma and recommended that a nurse must be sent to schools to conduct health inspection and this was commenced.

School health services have always been provided by the Government although it was not accessible to populations that were peri-urban and rural. According to De Haan (1994:4) the homeland governments were introduced in 1970 and school health services became the responsibility of independent (TBVC) states, that is, Transkei, Bophuthatswana, Venda and Ciskei. KwaZulu has its own Department of Health and a Minister of Health, including a separate budget for health although it was not a completely

independent State.

The school health services in South Africa are based on the practices from other countries, as the first school nurse that was appointed in South Africa came from the United States of America.

## **CONCLUSION**

The aspects of Health Education covered in this chapter makes health education a valued asset for individuals, particularly the children. The history of school health services forms the basis of discussion for this study as the present school health education practices are evaluated and change for better school health services is anticipated.

The dynamics of school health services discussed are important in planning for the future school health services. The schools are shared by all children of different nationality and school health services need to be made accessible for all and equitable distribution of resources, including health education.

**CHAPTER 3**

**THEORETICAL FRAMEWORK**

## **CHAPTER 3**

### **THEORETICAL FRAMEWORK**

#### **1 INTRODUCTION**

In this chapter the researcher discusses the theoretical framework in which King's theory of goal attainment is explained in relation to health education. Nursing is a science and an art as its practice is based on the acquisition of scientific skills and knowledge. It is therefore necessary to learn about the relevant theories that have contributed to the scientific nature of nursing and to apply some of these theories in our day-to-day nursing practices, including health education.

This study focuses on King's theory of goal attainment as applied to school health education since it appeared more relevant and appropriate. In this chapter the researcher attempts to uncover this theory's appropriateness for the study and its application. The researcher first explores a few definitions of the theory, then discusses its components and its relevance for this study.

#### **1.1 DEFINITIONS OF A THEORY**

According to Kerlinger (1973) cited in George (1995:2), a theory is a set of interrelated concepts, definitions and propositions that present a systematic way of viewing facts or events by specifying relations among variables with the purpose of explaining and predicting events. According to Chin and Kramer (1991) cited in Kershaw (1995:199) a theory is a creative, rigorous structuring of ideas that project a tentative, purposeful or systematic view of phenomena. The researcher sought to be creative and to structure ideas

about health education provided in schools, and it is for this reason that King's theory of goal attainment was utilised. It is necessary for this study to refer to King's theory because it is one of the theories that can be applied to community health nursing. It forms the theoretical basis of the study.

For the appropriate application of a nursing theory it is necessary to identify certain important characteristics of the relevant nursing theory. According to Bamum (1994) cited in George (1995:206), a complete nursing theory is one that has context, content and process. This author explains these components as follows:

Context is regarded as the environment in which nursing takes place while content is the subject of the theory and process is that method which the nurse applies in using the theory.

In this study the researcher regarded context as schools where the subjects who will be taught health education were found, content was regarded as health education itself and the process was the researcher's actions using the theory, and the method the researcher followed in utilising the theory.

## **1.2 KING'S THEORY OF GOAL ATTAINMENT**

According to King (1981) cited in George 1995: the theory of goal attainment consists of the following major elements, namely a data base, a problem list, a goal list a plan and progress notes. The author further describes this conceptual framework as a general systems model with three subsystems, i.e. personal system, interpersonal system and social system. The researcher in this study has identified and utilised these elements and subsystems described in King's theory in this study.

### **1.3 THE SUBSYSTEMS OF THE GOAL ATTAINMENT**

The subsystems of King's conceptual framework, viz the personal system, the interpersonal system and the social system are described in this study as applied to school health education – including the model for school health education – as follows:

#### **1.4 PERSONAL SYSTEM**

According to King's theoretical framework, a personal system is made up of concepts of perception, self-growth and development, body image, space and time. King cited in George (1995:195) further states that each individual is a personal system that is perceiving things and therefore perception is presented as a concept that influences all behaviours. In a personal system perception is action-oriented and is based on information that is available. Perception is also seen as universal or experienced by all subjective or personal and selective for each person, which means that any given situation will be experienced in a unique manner by each individual involved.

The researcher based the present study on the belief that perception is transactional and individuals are reactive participants with their identity being affected by their participation. The school children as active participants in health education would improve their knowledge of health education, change attitudes towards health as well as their health education practices. This anticipated change by the researcher would change the children's identities and children would know how to make decisions for themselves. This will ultimately change some of the cultural constraints which would restrict the participation of children in the health education model.

## **1.5 APPLICABILITY OF THE PERSONAL SYSTEM**

This study utilised the idea that the individual is a personal system that is capable of shaping behaviour towards health negatively or positively. The researcher therefore identified the perceptions the teachers, nurses, pupils and parents had of school health education.

These subjects were later trained in the techniques and methods of presenting health education. In accordance with King's discussion of a personal system, the training was aimed at increasing perception, influencing behaviour and providing meaning to the experience of health education as well as presenting the individual's image of reality. This occurred because according to King (1981) cited in George 1991:195) the characteristic of self is that of a dynamic individual, open system, and goal orientation.

## **1.6 INTERPERSONAL SYSTEMS**

According to King (1981) cited in George (1995:196) interpersonal systems are a subsystem in the theoretical framework. The interpersonal systems are important for the present study because health education involves human interaction. This interaction is comprehensive and is characterised by values, perceptions and the reciprocity. Interaction is mutual or interdependent, containing verbal and non-verbal communication. Interpersonal systems are important for this study as health education is a teaching and learning situation. To influence behaviour, the educator needs to develop a good rapport with the people and the activity is interpersonal.

## **1.7 SOCIAL SYSTEMS**

The social systems are the third subsystems in King's theoretical framework. According to King (1986) cited in George (1995:198) "a social system is an organised boundary, systems of roles, behaviours and practices developed to maintain values and mechanisms to regulate the practices and roles. King further identifies the important concepts of social systems as organisation, authority, power and status.

The present study aims at empowering people with knowledge and skills for health education in schools. Among these people are the children themselves and communities. According to King's theoretical framework, organisation is important for stakeholders to have clear descriptions of functions, roles, positions and activities to be performed, such as in child-to-child and peer education which the present study aims to implement. There should also be clear descriptions of outcomes and resources to carry out activities. The stakeholders within this subsystem need authority, power and status. To achieve these the model for school health education needs to be launched, made known to health and education authorities and approved. Authority to practice within the model for school health education will be secured by policies from relevant departments. These three subsystems working concurrently towards a common goal may improve school health education and eliminate health problems amongst this age group.

## **2 SUMMARY OF KING'S THEORY AND NURSING METAPARADIGM**

According to King (1990) cited in George (1995:205) the abstract concepts of this framework are human beings, health, environment and society. King also identifies assumptions about human being and describes human beings as social, sentimental, rational, reacting, perceiving, controlling,

purposeful, action oriented and line oriented. From the beliefs King has about human beings, the following assumptions which are specific to nurse-client interaction emerge.

Perception of the nurse and of client influence the interaction process of both the nurse and the client.

- \* Goals, needs and values and nurse and client influence the interaction process of both.
- \* Individuals have a right to participate in decisions that influence their life, health and community service.
- \* Health professionals have a responsibility to share information that helps individuals to make informed decisions about their health care.
- \* Individuals have a right to accept or reject health care.
- \* Goals of health professionals and goals of recipients of health care may be congruent.

The researcher in this study has considered school children as human beings and health education as a means of promoting health within an environment in a society that has input in the personal system. [The interrelatedness of these concepts is presented in full in the section which deals with model construction].

The idea of constructing a model for school health education that is community based and participatory, emphasising child-to-child and peer education, recognises individuals' right to knowledge and participation in school health education.

### **Assessment**

According to King cited in George (1995:204) assessment occurred during interaction of the nurse and the client who are likely to meet as strangers. The nurse brings to this meeting special knowledge and skills whereas the client brings knowledge of self and perceptions of the problems that are of concern.

During data collection in this study, King's theory of goal attainment and the nursing process was issued. During assessment, the researcher interacted with teachers, nurses, children and parents. As interaction took place, the researcher brought special knowledge and skills about health education while the stakeholders brought their perceptions. The needs of the stakeholders were presented and assessed which was identification of problems which led to planning.

### **Planning**

Planning, according to King cited in George (1995:205) is setting of goals and making decisions about how to achieve these goals. King further states that clients are requested to participate in decision-making as these should be mutual exchange of information when decision-making is done. The researcher in the present study adheres to the principles laid down in King's goal attainment theory so that there was interaction between the researcher and subjects. Decision-making was done jointly with clients.

### **Implementation**

According to King's theory, implementation occurs in the activities that seek to meet the goals and implementation is a continuation of transactions (George, 1995:205).

## **Education**

Evaluation, according to King cited in George (1995:205) involves descriptions of how the outcomes identified as goals are attained."

The steps of the nursing process described, form a basis for application of the proposed model for health education discussed in chapter six of this study.

### **3 THE THEORY OF GOAL ATTAINMENT AND THE NURSING PROCESS**

The nursing process is an important and scientific method that can be used to solve nursing problems and is necessary for the present study of health education in schools. The basic assumption of the theory of goal attainment is that nurses and clients communicate, set goals mutually and act to attain those goals. This assumption is also applicable to the nursing process.

The steps in the nursing process, according to King (1990), consists of assessment, planning, implementation, evaluation and recording.

## **CONCLUSION**

In this chapter the researcher discusses the theory of goal attainment by King as its basic assumptions and components are applicable to the present research study.

**CHAPTER 4**

**RESEARCH METHODOLOGY**

## **CHAPTER 4**

### **RESEARCH METHODOLOGY**

#### **1 INTRODUCTION**

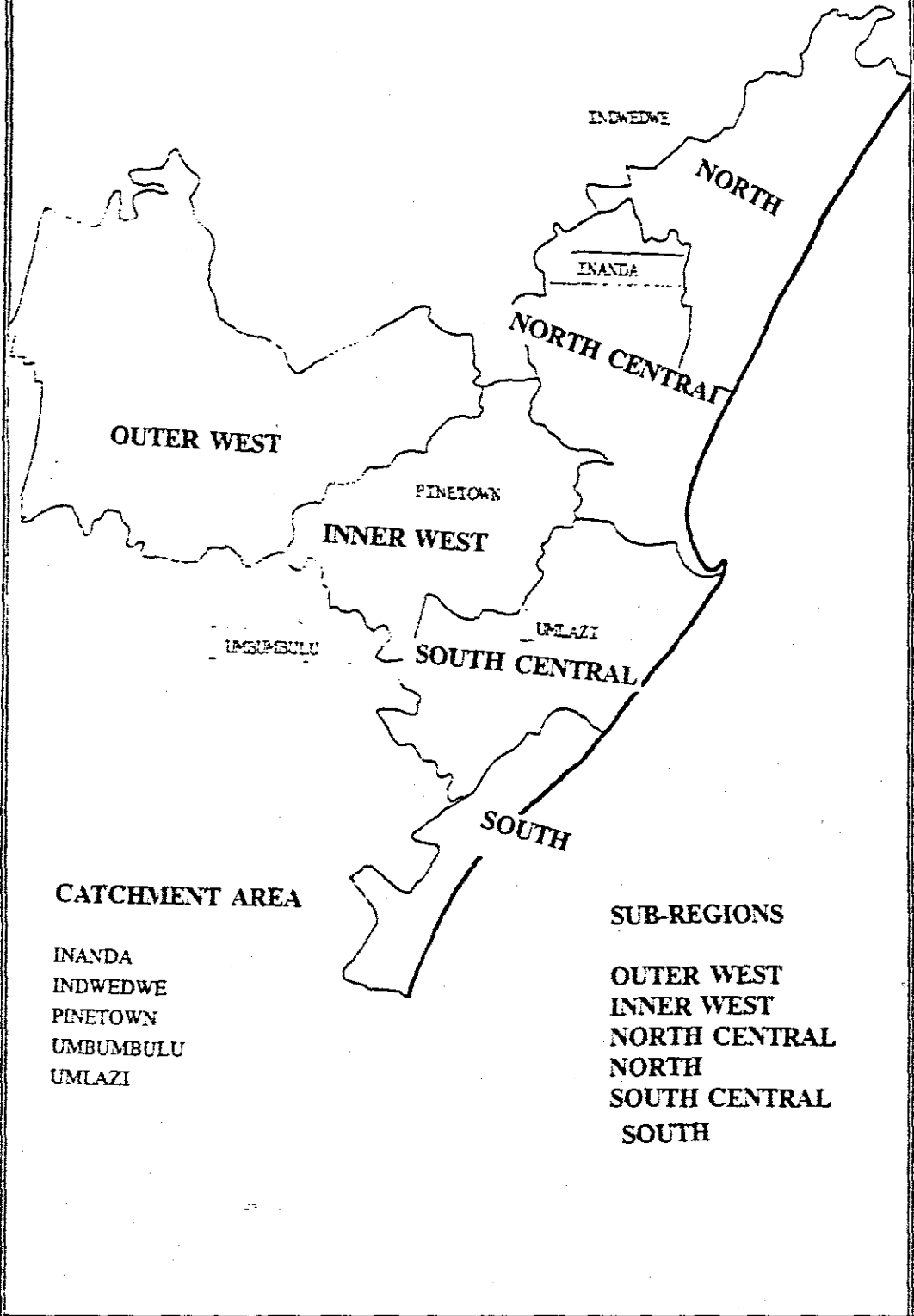
Research methodology in this study describes the researcher's ultimate goal and the general plan for achieving these goals. According to Polit and Hungler (1995:646) research methodology refers to the study of steps, procedures and strategies for gathering and analysing the data in a research investigation. The researcher in this study used both qualitative and quantitative methodology to eliminate links. According to Stewart, Tudiner, Dunn and Norton (1992:165) these two methods can be used concurrently to add "richness to the quantitative study results.

This chapter also details procedures such as assessment, surveys, tools, testing of such tools, the sample and sampling methods including ethical considerations.

#### **2 DELIMITATION OF THE SCOPE OF THE STUDY**

According to Treece and Treece (1986:362) delimitations in research are those restrictions that the researcher placed on the study prior to gathering data. The study was carried out in Region 'F' of KwaZulu-Natal Province and only in schools within the catchment area as shown in the map. The catchment area included urban, peri-urban and rural areas with Region 'F' namely Umlazi, umbumbulu, Inanda, Indwedwe, KwaDabeka and KwaSanti area in Pinetown.

**A MAP OF REGION "F" THE DURBAN FUNCTIONAL REGION OF KWAZULU-NATAL PROVINCE SHOWING THE SUB-REGIONS AND THE CATCHMENT AREA.**



From these areas, there were six (6) Circuit offices which were utilised by the researcher as a source of information. List of schools, school principals and telephone numbers were obtained. The schools were in these areas since this was the designated catchment area for the study. The study was carried out within the urban, peri-urban and rural settings. School children enrolled for the year 1996 and were between the ages of 10-23 years, and doing Grades I-IV, Grades V-VII and VIII-XII of their study.

The research was limited to exit classes due to the policy of school health services in KwaZulu-Natal province for instance, immunisation was provided at first year of school, (Grade I) health inspection and health education was done in exit classes such as Grade IV and Grade VII while in high schools there were no services provided by the school health teams. For the purposes of this study, the researcher included high school children in Grade XI and XII so that these children could make necessary input for school health services of the future. The study investigated perceptions of school teachers, school nurses, school children and parents in the schools formerly designated as Black schools in Region 'F' of KwaZulu-Natal Province.

A comprehensive view of health education offered to schools run by different administration of Black schools such as former (DET) Department of Education and Training and the former Department of Education and Culture KwaZulu was obtained. Findings are relevant to schools within the whole of South Africa as the same conditions such as lack of resources and health problems prevail.

## **ETHICAL CONSIDERATIONS**

The following ethical aspects were given consideration as the study is concerned with perceptions and personal data which were obtained from the participants of this research.

### **Permission for the study**

Permission to conduct the study was obtained from relevant authorities responsible for administration of schools, hospitals and clinics. The levels at which permission was granted was KwaZulu-Natal Provincial, Regional and Local authorities. For the teaching profession, permission was obtained from the Regional Director of Education, the Superintendents of Circuits, Inspectors of schools involved in the study and school Principals. For the nursing profession, permission was obtained from the Superintendent General for health and the Director of Nursing Services, the Medical Superintendents and Nursing service managers in charge of hospitals and clinics involved in the study.

### **INFORMED CONSENT**

An ethical principle is truth-telling according to the National Commission on Public Health (1978) cited in Stanhope and Lancaster (1992:77). A client has a right to information so as to choose what shall or shall not happen to him/her. The authors further state that the client should comprehend what will happen without language barriers, a written consent or agreement should be given free of coercion or undue influences.

This view is further confirmed by (Seaman 1987:23) who state: that informed consent acts to safeguard participants by preventing harm being done to them and people can give consent once information is sufficient on

which to base decision. In view of the sensitivity of the problem and the general suspicion the people have about having to answer questions and not to impinge on political organisations, professional organisations and trade unions, the letter of permission from the Department of Education or Department of Health was produced. The Circuit Inspectors or Nursing Services managers were given letters to pass on to the Principals or Senior Professional nurses in charge of the school Health Services teams.

Voluntary participation was emphasised to subjects constituting the sample. During pre-data collection meetings, the researcher explained this aspect clearly. A specific letter was written to parents requesting their participation as well as their children's participation in the project. Parents had to give a written consent and sign if they were willing to participate.

## **ANONYMITY AND CONFIDENTIALITY**

The covering letters and interview schedules emphasised the assurance of anonymity and confidentiality by indicating to participants not to write their names anywhere on the questionnaire.

## **RESEARCH DESIGN**

### **Survey**

A survey research method was used in this study. A survey is designed to obtain information from populations regarding the prevalence, distribution and interrelations of variables within those populations (Polit and Hungler, 1995:155). In support of this statement, Seaman (1987:163) says that a survey is a research design which relies heavily upon the validity of reports. The researcher chose a descriptive design. Additional comments were asked from subjects in order to obtain further information on school health

education which had not been covered by the questionnaire for teachers, school nurses, school children and parents.

This was an attempt to allow freedom of expression by providing open-ended questions for the subjects to express their feelings regarding school health education.

### **Situational analysis**

A situational analysis was necessary to analyze the situation in schools and to provide baseline data on the nature and extent of health education, as well as the environmental factors affecting the health of school children. This was undertaken by the researcher in each school which formed sample for the study. A specific checklist was provided to obtain this information.

## **3 TARGET POPULATION**

The target population for 1996 scholars included all school children enrolled and attending school in the lower primary, combined primary and high schools within the catchment area. The age distribution of such children was 10-23 years. The teachers in the chosen schools, school nurses responsible for health services and parents were targeted for the study. Stratified sampling of a probability type was used.

### **Stratified Sampling**

Stratified random sampling refers to random selection of subjects from two or more strata of the population independently, Polit and Hungler (1995:537).

Disproportional sampling design is when inter-stratum comparison are sort

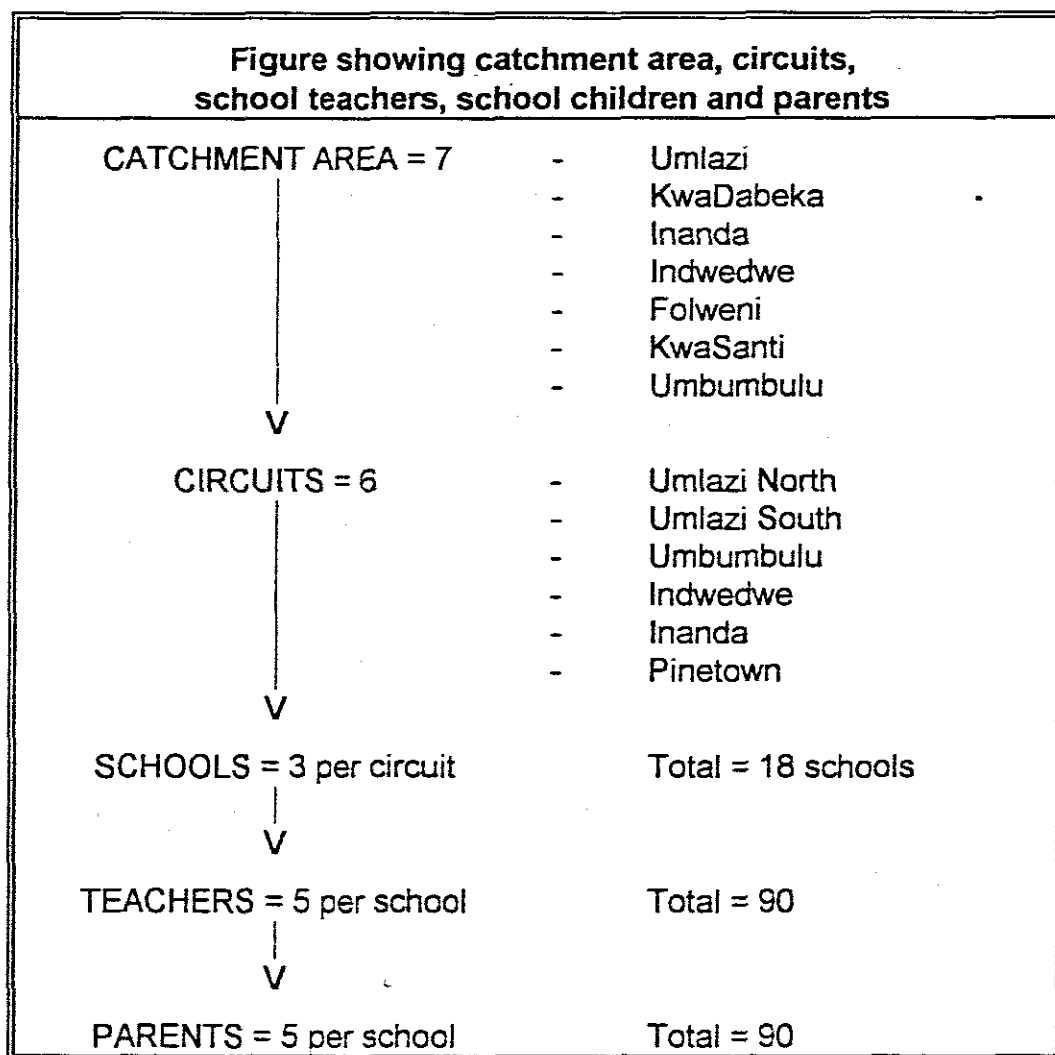
between strata of greatly equal membership size, Polit and Hungler (1995:217). These methods of sampling techniques were used to obtain a sample.

### **Area of Research**

The study was carried out in Region 'F' of KwaZulu-Natal Province. This area consisted of a catchment area where the research was specifically carried out. The researcher chose the area within this region which was classified according to geographical distribution into urban, peri-urban and rural. Schools and clinics around these areas were identified through different circuits and health institutions providing school health services. The areas constituting the catchment area were the following:

<b>Urban</b>	<b>Peri-urban</b>	<b>Rural</b>
KwaDabeka	Inanda	KwaSanti
Umlazi	Folweni	Indwedwe
		Umbumbulu

The researcher in this study focused on the former KwaZulu government and Department of Education and Training (DET) schools. The circuit offices were all selected in Region 'F' and the schools around each circuit were systematically selected to form the sample for the study.



**A Table showing circuits without the catchment area which were chosen on the basis of geographical distribution**

Urban	Peri-urban	Rural
Pinetown	Inanda	Indwedwe
Umlazi North		Umbumbulu
Umlazi South		

The total of three (3) schools within a circuit in the catchment area were randomly selected. They were first arranged into strata that is, lower

primary, combined primary and high schools. One school was chosen randomly from each category.

#### 4 RANDOM SELECTION OF SCHOOLS

A stratified random sampling technique was used within each subsection of the catchment area schools were listed and names cut and placed in a container. A neutral person picked a school from each strata in each container. The schools that were chosen systematically were the following:

**Table showing Random Sampling of Schools**

Circuit No	Name of Circuit	No of Schools	Circuit No	Name of Circuit	No of Schools
1	Umlazi North	3	4	Indwedwe	3
2	Umlazi South	3	5	Inanda	3
3	Umbumbulu	3	6	Pinetown	3
<b>Totals</b>		9			9

#### Sampling of School Teachers

All teachers in a chosen school were eligible for selection. For purposes of this study only five (5) teachers formed sample. Random numbers were allocated on special cards and other cards had no numbers. Teachers who picked the five (5) cards with numbers formed sample for the study and

responded to the questionnaires provided.

In each school five (5) teachers were selected and therefore fifteen (15) teachers were selected in each circuit. In all ninety (90) teachers formed a sample for the study from all six circuits. [1 circuit x 3 schools x 5 teachers = 15 x 6 circuits = 90].

### **Sampling of School Nurses**

All school nurses that provided school health services for the selected schools formed sample for the study and responded to the questionnaire provided. In all thirteen (13) nurses responded to the questionnaire for school nurses.

One lower primary school, one combined primary school, and one secondary or high school. This arrangement facilitated division of schools into strata or sub-populations. Seaman (1987:235) defines strata as comprising of mutually exclusive portions of the population, each of which is a stratum.

In this way, three (3) schools were selected in each circuit. The criteria that was used was urban, peri-urban and rural. The catchment area was first divided into sub-areas and the circuit offices were chosen among these areas i.e.the following circuits were chosen: Umlazi North, Umlazi South, Umbumbulu, Indwedwe, Inanda and Pinetown circuits.

The schools were given codes to allow for anonymity when results were discussed.

## **SAMPLING OF SCHOOL CHILDREN**

The researcher also used stratified random sampling in which two separate class lists were made and subjects were selected by simple random sampling. This was done to ensure representativeness of the sample i.e. half the number of boys and girls. The two class lists represented the two sub-population groups and according to Polit and Hungler (1995:237) stratification may be based on a wide variety of attributes such as age, gender, occupation. In this case the researcher used attributes such as age because the school children had to be between the ages 10-23 years.

Gender distribution was the second attribute. 5 boys and 5 girls were selected by simple random sampling in each school. The third attribute was the class that the school children were doing i.e. grade IV in lower primary schools, grade VII in combined primary schools. These classes were chosen because health inspection in schools is usually done in exit classes, grade IV being an exit class in lower primary schools and grade VII being exit class in the combined primary schools. The exit class for high schools was grade XI but there was an agreement that was made between the school principals and the researcher that grade XI be accepted as an exit class in high schools. At the time of collection data the grade XII pupils were not available as they were busy preparing for examinations.

## **PROCEDURE FOR SIMPLE RANDOM SAMPLING OF SCHOOL CHILDREN**

For simple random sampling the researcher must establish a sampling frame which is the actual list of the sampling units or elements from which the sample should be chosen. The researcher in this study constructed two lists according to gender distribution and for 100 school children every 10<sup>th</sup> child was chosen and for 50 school children every 5<sup>th</sup> child was chosen.

The method of sampling discussed is supported by Polit and Hungler (1995:236) and Seaman (1987:141) who state that systematic sampling involves the selection of the subject from some list like every 10<sup>th</sup> person or every 100<sup>th</sup> person in a particular list.

The number of children selected in each circuit was fifteen (15) from the three (3) schools that were selected randomly. Since there were six circuits involved in the study, the number of school children that formed sample for this study was therefore ninety (90).

### **SAMPLING OF PARENTS**

A purposive sampling technique was followed, for instance parents of selected children formed a sample for parents and school nurses, all formed a sample for the study. In this way, ninety (90) parents formed the sample for the study in a school and fifteen (15) parents in a circuit.

## **5 THE RESEARCH INSTRUMENT**

Questionnaires were used for data collection. Treece and Treece (1986:277) described the questionnaires as a document containing a series of questions that must be responded to by all participants in the sample. It is the most common research tool.

### **DESIGNING THE QUESTIONNAIRE**

A short letter was written to parents and was given to the school children by the principal of the school. In some cases the letter was given to parents by the principal himself. The parents were requested to give consent for their children to participate in the study as well as the parents themselves, and a date was suggested for parents to come to school for further

clarification and participation in the study.

Four sets of questionnaires were formulated for school teachers, school nurses, pupils and parents.

The rationale for separation of questionnaires was the varying degrees of responsibility for health education which means that school health education may be perceived differently by these groups. It is ideal that nurses should remain as a dominant group ready to teach health education and assist other members of the team.

## **TYPES OF QUESTIONS**

Formulation of questions was subject to adherence to the set objectives of the study, observations, informal discussions and available literature on health education in schools.

The type of questions asked were both open- and closed-ended. Close-ended questions were included because respondents are known to complete more close-ended questions which require the respondent to formulate his/her own response. According to Polit and Hungler (1995:283) some respondents lack the skill to respond appropriately.

Open-ended questions were included because they enable more in-depth probing into the superficial information obtained through close-ended questions. At times respondents object to being forced into choosing from the alternatives which do not reflect their precise opinions and tend to omit those questions. A combination of two types of questions were therefore chosen because it offers the weaknesses of each type.

## **DISCUSSION OF QUESTIONNAIRES**

### **QUESTIONNAIRE FOR SCHOOL TEACHERS**

The questionnaire for teachers was divided into three sections, namely: personal particulars, involvement of teachers in health education and Section B which consisted of a scale to record agree, disagree and unsure responses.

#### **Section A: Personal Particulars; 1.1-1.7**

This section highlighted gender, age, marital status, area of employment, classes taught, educational preparation and qualifications of teachers and the area of employment which could be urban, peri-urban or rural.

#### **Involvement of teachers in health education; Items 2.1-2.2**

The inclusion of this section was based on need for every teacher to be involved in teaching health education. The questions determined if teachers were involved in teaching health education or could be interested to do this in the near future.

#### **A list of health education topics that teachers perceive as important to be taught at school; Item 3**

This section of the questionnaire highlighted if the teacher was interested in teaching health education or could be interested to teach health education in the near future.

## **Section B**

Consisted of statements constructed in a scale viz., **agree, disagree** and **unsure** responses. This section of the questionnaire was included for the following reasons:

- (1) To highlight perceptions of teachers with regard to who should teach health education? Teachers or nurses? and
- (2) To what extent should teachers be involved in teaching health education. This was to determine the teachers' preparedness to teach health education in terms of educational qualifications and workload.

There were seventeen (17) sub-questions asked in this sub-section.

### **Discussion of the sub-sections**

Items 1-4 required the teachers to respond for identification of their perceptions of school health services whether they preferred a nurse or to do it themselves.

#### **Item One**

Item one determined if teachers regarded the nurses' participation in school health education as important.

#### **Item Two**

Item two determined if nurses should be employed to deal with health education and problems in schools of Region 'F' KwaZulu-Natal Province.

**Item Three**

Item three determined if teachers see nurses as better able to handle health problems of school children.

**Item Four**

Item four determined if the teachers saw a need for a nurse to attend to the emergencies at school or had a different opinion.

Items 5-18 dealt with school health education. As related to a school teacher during his/her practice and school children.

**Item Five**

Item five determined if health should be a responsibility of the teachers only.

**Item Six**

Item six tested if teachers regarded detecting health problems as their responsibility and the extent of this responsibility i.e. whether it is shared with parents and nurses.

**Item Seven**

Item seven determined if teachers were the key people to teach health education.

**Item Eight**

Item eight determined if teachers were regarding late-coming and sleeping in class as related to health problems.

**Item Nine**

Item nine determined if teachers accepted their role of assisting chronically school children with medication during school time.

**Item Ten**

Item ten determined if teachers notified parents when children were sick at school and advised them to take their children to a clinic or hospital.

**Item Eleven**

Item eleven determined if teachers took communication with parents as an additional load to their teaching.

**Item Twelve**

Item twelve determined if teachers received feedback from each child after being referred to a doctor or clinic.

**Item Thirteen**

Item thirteen determined if there was a trained teacher in the school who attended to first-aid emergencies in school.

**Item Fourteen**

Item fourteen determined if teachers found it necessary for them to be trained in health matters in order to handle health problems of school children.

**Item Fifteen**

Item fifteen determined if teachers felt they had the required skills to teach health education or they needed to improve their skills.

**Item Sixteen**

Item sixteen determined if there was any record kept in school on the health profile of children and whether the teachers saw the need of keeping such a record.

**Item Seventeen**

Item seventeen determined if teachers supported the idea of having a first-aid box in schools.

**QUESTIONNAIRE FOR SCHOOL NURSES**

The questionnaire for school nurses was divided into four sections, namely: personal particulars, problems which were generally found among school children and procedure for referral of children, home visits and practice of school health education.

**Section One**

### **Item One - Personal particulars; 1-4**

This section of the questionnaire highlighted personal particulars, the educational preparation, area of work and the personnel responsible for control of school health services.

### **Section Two**

Item 1 determined problems that were generally found by the school nurse among school children.

Item 2 required the nurse to state how medical referrals were done and to which agencies the referrals were made.

### **Section Three**

Section three of a questionnaire consisted of the practice of school health education including home visits.

### **Home visits**

Item 3.1 determined if home visits were done and the areas which were visited by the nurse either urban, peri-urban or rural.

Item 3.2 determined the socio-economic status of the people in the area.

Item 3.3 determined the impression that the nurse had about parental control of the family.

Item 3.4 determined the general health status of the children.

Item 3.5 determined the level of personal hygiene of the children.

Item 4 determined if transport was available to render the service and how often it was available. if it was not available the nurse stated the reasons.

Item 5 required the nurse to state the number of staff responsible for school health services stating the role of each staff member.

Item 6 determined how often school health services were conducted.

Item 7 determined if in-service education was done and how often.

Item 8 established if school nurses discussed with teachers health problems of school children.

Item 9 required the nurse to list the usual problems that were experienced while doing the school health services.

Item 10 required the nurse to list suggestions to deal with problems that were experienced.

Item 11 determined if in-service education was done and how often.

Item 12 established if school nurses discussed with teachers health problems of school children.

Item 13 required the nurse to list the usual problems that were encountered while doing the school health services.

Item 14 required the nurse to list suggestions to deal with problems that were encountered.

Section B consisted of statements in a scale viz; agree, **agree**, **disagree** and **unsure** responses.

### **Item 15**

#### **Discussion of sub-sections 1-6**

##### **Item 15.1**

Item one required the nurse to state if children were presently actively involved in health education.

##### **Item 15.2**

Item two determined if school children should be taught health education techniques to teach their families and friends.

##### **Item 15.3**

Item three required the nurse to state if she found it easy to teach school children health education techniques.

##### **Item 15.4**

Item four determined if the nurses visited the schools for health education frequently.

##### **Item 15.5**

Item five determined if the nurses felt comfortable if teachers were utilised to teach health education in schools.

**Item 15.6**

Item six required the nurse to state if an improved health education service by nurses was essential.

**Item Sixteen**

Item seventeen required the nurses to enumerate the health problems which occurred frequently in schools.

**Item Seventeen**

Item eighteen required the nurses to enumerate the topics that could be taught to school children including those that had never been taught before which were important.

**Item Eighteen**

Item nineteen required the nurses to record additional comments or information that was important which the questionnaire did not provide.

## DISCUSSION OF QUESTIONNAIRES FOR SCHOOL CHILDREN

Questionnaires for school children consisted of three sections.

### Section 1: Personal details; Items 1-4

This section highlighted details such as: gender, age, place of residence, the person(s) staying with the child.

### Section 2: School health education practice

This section determined if the child had been told about health before, list of topics taught, by whom and if human sexuality was ever mentioned to the child or growing up. The child was also required to suggest suitable people to teach health education.

#### Item Five

Item five determined who was responsible for teaching the child health habits.

#### Item Six

Item six required the child to list things that he or she was told regarding keeping healthy.

#### Item Seven

Item seven required the child to list the habits which he or she regarded as unhealthy.

**Item Eight**

Item eight determined if anyone talked to the child about the functioning of the body or growing up and who this person was.

**Item Nine**

Item nine established if the child was prepared to be trained to teach health education to his friends and family when given an opportunity.

**Item Ten**

Item ten established if the child was involved in teaching health education before.

**Item Eleven**

Item eleven determined topics that the child thought were important in health education.

**Item Twelve**

Item twelve required the child to list categories of people which he or she thought should participate in educating school children about keeping healthy.

**Item Thirteen**

Item thirteen required school children to record additional comments or information that was important which the questionnaire did not make provisions for.

## **QUESTIONNAIRE FOR PARENTS**

The questionnaire for parents consisted of two sections, namely:

### **Section 1: Personal details; Items 1-5**

Personal details determine gender, age, residential area, relationship to the child, involvement in community projects and whether he/she would appreciate being taught by his/her own child.

### **Section 2: School health education practice**

#### **Item Six**

Item six determined if parents were involved in community projects and if they were willing to participate in school health education.

#### **Item Seven**

Item seven determined if parents appreciated being taught by their own children health education.

### **Section Three**

#### **Item Eight**

Item eight required parents to list the topics that they thought were important and should be taught to school children.

The researcher determined from parents those topics that could be taught to school children to reach an agreement. There are complaints that school

children are corrupted by nurses and teachers through teaching them things that are beyond their scope such as topics on sex.

### **Item Nine**

Item nine required the parents to record additional comments or information that was important which the questionnaire had not made provisions for.

### **THE CHECKLIST**

The checklist was the third research tool that was used to validate information provided by the respondents and through observation of the schools by the researcher during data collection.

According to Treece and Treece (1986:289) "a checklist is defined as a prepared list of items with marked columns used by a researcher to collect relevant data". The author further indicates that "checklists come in many types and may use the scales such as often, seldom or never. In the study the checklist provides for "yes" or "no" and open-ended questions. The checklist helped to guide collection of data from the respondents on the current health education practices.

The researcher found it necessary to obtain information regarding the current practices of school health education, including the status quo, that is, the environmental factors found in the school setting. A checklist consisting of two sections was used. Section one of the checklist consisted of five questions which needed only the researcher's observation, namely: the environment was assessed whether clean, free from hazards, the size of school was assessed for suitability compared with the number of children, the furniture was assessed whether enough or inadequate, and whether it was in a good condition or broken. The windows were assessed

if they were adequate, or whether they were small or broken.

The second section of the checklist consisted of six questions which needed responses from teachers. Questions were asked from teachers with regard to the following: existence of a sick room in the school, first-aid kit, a telephone or fax to facilitate communication. They were also asked if there was a teacher trained in first-aid, if the subject health education was catered for in the time-table, if the clinic or primary health-care centre was within walking distance.

### **TESTING OF TOOLS FOR RELIABILITY AND VALIDITY**

The research tools were tested by the researcher for validity in the following manner. The instruments were presented to research and nursing experts for checking and recommendations for improvements. These experts found the tools to possess face validity. To ensure validity of the questionnaire, a mini study having the same general characteristics as the major study was undertaken. The purpose of the mini study was to improve the research process, detect problem areas and ensure understanding of the language used (Polit and Hungler, 1995:347).

According to Treece and Treece (1986:128) "validity is the ability of the instrument to measure what it is actually meant to measure". The author further states that "there are various types of validity, namely; face validity, content validity, construct validity and criterion validity to ensure effectiveness of measurement procedures. For the present study face validity was attested. Face validity is the consensus of agreement that a measure represents a particular concept based on validation by a variety of researchers, Treece and Treece (1986:130).

According to Notter (1979 :166) reliability refers to the stability and repeatability of the data collection instrument. Reliable instruments obtain consistent results when tested. A pilot study became necessary to pretest the instrument.

A pilot study was done for pre-testing of the instruments. According to Treece and Treece (1986:176) "a pilot study is a preliminary investigation of the same general character as the major study to detect problems that must be solved before the major study is undertaken and to make improvements". The researcher in this study conducted a pilot study to gain more insight on the practice of school health education and to check on the tools if they had the ability to attain the set objectives of the study. If a project is carried out using 100 people as a sample, a pilot study participation of 10 subjects should be a reasonable number, Treece and Treece, (1986:176). The researcher used 180 school children as a sample and therefore 10 school children were selected randomly at school X which is a combined primary school in Region 'F' and were grade VII children and therefore qualified for a trial run of the mini study. This higher primary school was within the catchment area and would not take part in the study.

## **RESULTS OF THE PILOT STUDY**

In their response to the questionnaires, school children were able to give responses to the questions asked. The teachers working in this primary school, the parents of the children selected for the pilot study and the nurses providing school health services for this school also responded to the specific questionnaires provided. The questionnaires were modified and corrected accordingly.

## **PREPARATION FOR DATA COLLECTION**

A massive collection of data from various schools and respondents was necessary for the study and therefore it needed careful planning. After random selection of schools by circuit inspectors, letters were written to the principals of those schools by the researcher and the circuit inspectors preferred to hand the letters over to school principals through the circuit offices.

Contact with principals was made telephonically and appointments were made for the researcher to visit the schools.

### **Initial visit**

The researcher made the initial visit to all schools constituting the sample for the study. Aim of this visit was to introduce the researcher to the principal and teachers including orientating them to the study and data collection.

The researcher explained methods and procedures that would be used to collect data and proved legality of the project by display of a letter from the Department of Education authorising the conducting of the study.

### **Meeting with teachers**

For orientation purposes the researcher conducted a meeting with the teachers to explain that data regarding the perceptions of teachers, school children and parents would be collected during the next visit. The time that the procedure would take place was estimated and what the teachers were expected to do such as preparing the venues for the groups. Teachers had to choose the suitable day for data collection so that they are not

inconvenienced. The following issues were discussed, namely: sample selection for school children and informed consent from parents including data collection from teachers.

The researcher explained that all teachers were eligible to a sample for the study but individuals were not forced to participate in the study. A questionnaire would be provided for their responses with regard to their perceptions for school health education.

They were also informed about a checklist that would be used by the researcher to obtain and record information pertaining to the school environment and perceptions of school teachers regarding school health education.

#### **Data collection from school children**

The researcher explained that only ten school children would be required to form the sample of which five respondents would be girls and five respondents would be boys. A class register for exit classes in the school i.e. grade four, grade seven and grade eleven was used. Two separate lists one for boys and girls was made available and the school children were selected randomly using simple random sampling technique.

#### **Informed Consent**

The school children were under the age of eighteen years and could not give informed consent on their own for the study. The researcher provided typewritten letters of request, previously prepared and just filled-in names of the ten respondents after random selection had been done. The letter also requested participation of the parent or guardian and also provided the data and time of the next meeting with the researcher. The principals also

wrote a covering letter to such parents as the researcher was not known by parents. Further attempts were made to invite parents through telephone calls by principals or contact teachers delegated by the principals so that they could present themselves for data collection.

### **Information regarding the environment**

The researcher explained the need to collect information regarding the physical environment of the school and ask permission to ask questions in this regard. When such information was to be collected, other methods of data collection to be used were assessment and situational analysis. In use of such methods, the researcher just observed the physical environment of the school and asked a few relevant questions from the teachers. A checklist was therefore used in the assessment of the environment and in performing a situational analysis.

### **Planning Data Collection from a group of school nurses**

Permission to conduct research in hospitals and clinics was obtained from the Department of Health KwaZulu-Natal Province. Permission was also obtained from the nursing service managers and the Medical Superintendent of the hospitals involved including the clinic sisters or senior professional nurses leading the health education teams in a case of former KwaZulu school health services.

### **Bhekimpilo Trust**

Bhekimpilo Trust is a non-governmental body subsidised by the government. It provides primary health care in peri-urban areas and informal settlements. The organisation has managed to construct primary health care units within the premises of certain schools in informal

settlements. Some schools which were randomised as sample for the study had school health services provided by Bhekimpilo Trust. In such cases, permission was obtained from the Director of Bhekimpilo Trust. In such cases, permission was obtained from the Director of Bhekimpilo Trust and the Chief Nursing Officer who informed the health education teams about the research.

### **Procedure for obtaining data from the groups**

The researcher requested each group to form a circle and relax. She then completed the circle by sitting among the group members. The researcher introduced herself and the participants were also given time to introduce themselves. Items in the questionnaire were explained and members who had questions were allowed to ask. Members were asked if they were ready to make responses on the questionnaires. After the members had indicated readiness to answer the questions, they were allowed to make responses freely without being influenced by their friends or people sitting adjacent to them.

The questionnaire given to school children was translated to Zulu to facilitate understanding and thus appropriate responses. The school children were given assistance by the researcher and the research assistant until the group made the required responses to the questionnaires. There was a 100% return of completed questionnaires.

The parents also gathered in another room and formed a circle and the same procedure was followed. A full explanation of the procedure was given that is, responses should come from individuals and subjects were not allowed to discuss with others. To eliminate bias parents received guidance from the research assistant.

Questionnaires which were written in Zulu were distributed among the parents. The researcher then read the instructions on the questionnaire and parents were asked to feel free to ask questions for better understanding of the procedure. A research assistant was available to offer help to those parents who were semiliterate and illiterate. Responses to the questions were made and parents were happy to be involved in the project.

### **RETURN RATE OF QUESTIONNAIRES**

The following table shows the return rate of questionnaires.

Table 4: Return rate of Questionnaires from:

School Code	School Teachers		Children		Parents	
	Number	Return %	Number	Return %	Number	Return %
MCO	5	100	5	100	5	100
MZO	5	100	5	100	5	100
PHEP	5	100	5	100	5	100
HLEG	5	100	5	100	5	100
NYUS	5	100	5	100	5	100
PUT	5	100	5	100	5	100
LGE	5	100	5	100	5	100
ZIPH	5	100	5	100	5	100
ALAS	5	100	5	100	5	100
KSA	5	100	5	100	5	100
BHK	5	100	5	100	5	100
BD	5	100	5	100	5	100
KGC	5	100	5	100	5	100
NGON	5	100	5	100	5	100
IMPIL	5	100	5	100	5	100
GAG	5	100	5	100	5	100
EKZ	5	100	5	100	5	100
BHB	5	100	5	100	5	100
<b>TOTAL</b>	<b>90</b>		<b>90</b>		<b>90</b>	<b>100</b>

**Table 4**

The table presented reflects that a total of 270 questionnaires were handed out to teachers, children and parents. For teachers 90 questionnaires were handed out, for children 206 and for parents 90 questionnaires. The return rate of all groups was 100% because all members who took questionnaires

responded to them and handed them over to the researcher.

## **RETURN RATE OF QUESTIONNAIRES FROM THE NURSING PERSONNEL**

The total number of nurses to whom the questionnaires were handed over was 13 from the three departments that had staff members participating in the project. The return rate is described as follows:

### **Category of Professional Nurses**

The category of professional nurses constituted six respondents with a return rate of 100%.

### **The Category of Staff Nurse**

The category of staff nurses constituted three staff nurses with a return rate of 100%.

**The category of SASO** (Specialized Auxiliary Service Officers) were specifically trained to give health education in schools, trace Tuberculosis contacts and to assist with community development. The category of SASO's constituted three staff members with a return rate of 100%.

### **The category of Enrolled Nursing Assistant**

The category of enrolled nursing assistant constituted one staff member with a return rate of 100%.

## **CONCLUSION**

The foregoing is the account of how the researcher adhered to scientific procedures when preparing for collection of data. The researcher has also discussed data collection at length. The data that was collected from various groups that formed the sample of the study is presented and analyzed in chapter five.

**CHAPTER 5**

**PRESENTATION, ANALYSIS AND  
INTERPRETATION OF DATA**

## CHAPTER 5

# PRESENTATION, ANALYSIS AND INTERPRETATION OF DATA

### INTRODUCTION

The researcher in this study used both quantitative and qualitative research methodologies. This chapter therefore contains presentation, analysis and interpretation of data obtained from a situational analysis of the schools, and perceptions of school teachers, school nurses, school children and parents including additional comments from the stakeholders.

The next chapter discusses data cross tabulated from the stakeholders and interpretation.

Objectives formulated in Chapter 1 are tested in this chapter. Quantitative descriptive statistical analysis for example, frequency distribution, class intervals, ordinal scales, measures of central tendency such as the mean were used. Findings are presented in the form of tables, bar graphs and pie graphs. The scoring of close-ended questions was done.

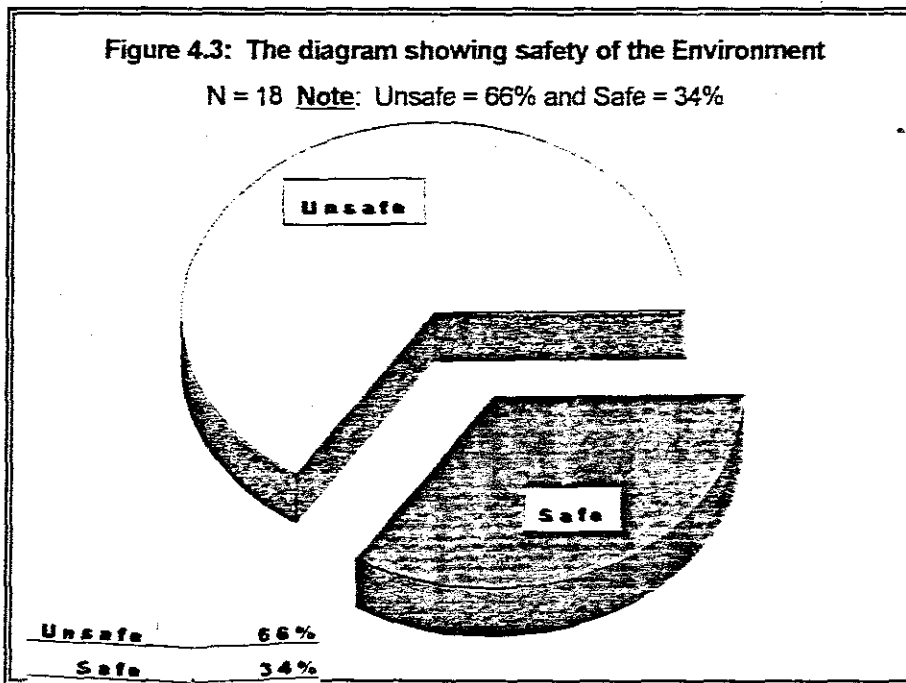
### Analysis and Interpretation of Data

The schools where data was collected were allocated codes that were used throughout the research study. The department responsible for organisation of school services was also indicated to make it easy to compare and contrast services that were provided by these departments.

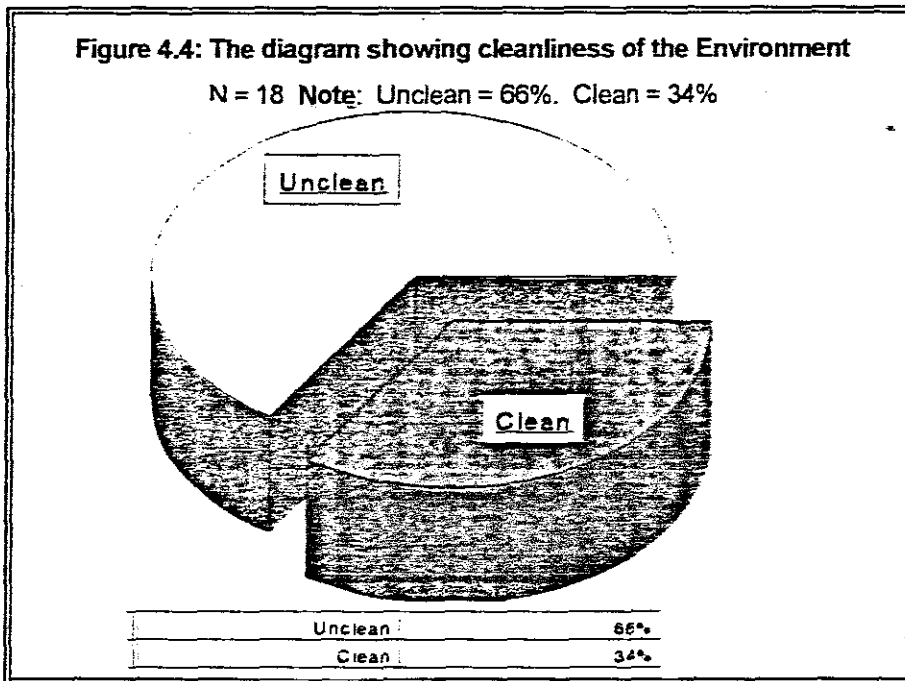
### Naming of areas and schools

To facilitate data analysis the areas where research was undertaken were allocated numbers and schools allocated codes. The areas of focus for research were chosen from the catchment area as the criteria of selection was the presence of a circuit office.

1 Umlazi North	2 Umlazi South	3 Umbumbulu
4 Indwedwe	5 Inanda	6 Pinetown

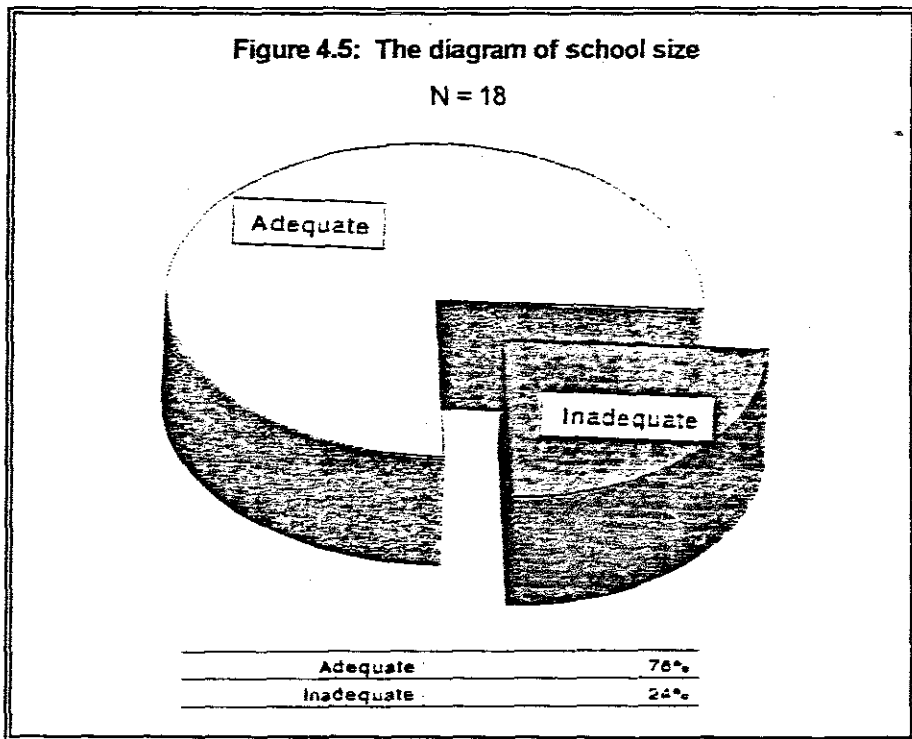


- The item of environment revealed that 66% (12) of the schools formerly administered by the Department of Education ad Culture KwaZulu had an unsafe environment with uneven grounds. The schools that were formerly administered by Department of Education and Training have a safe environment.

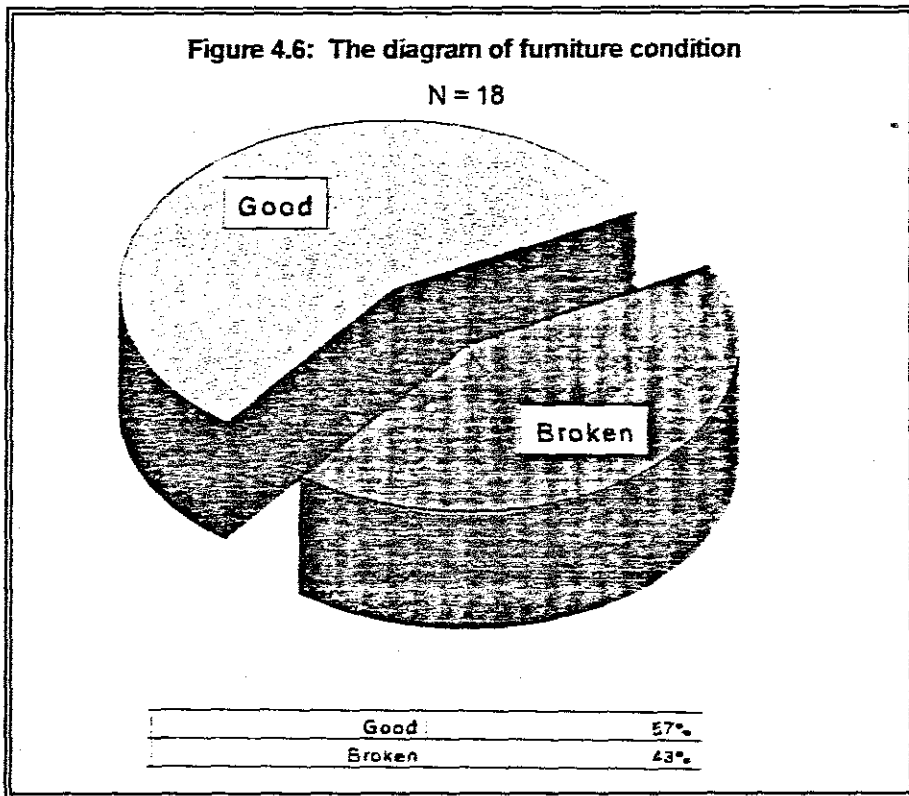


- Cleanliness of the environment also tallied with the findings on cleanliness of the environment of the situational analysis undertaken by the researcher. The environment of the schools was as follows: unclean constituted 66% and clean environment was 34%.

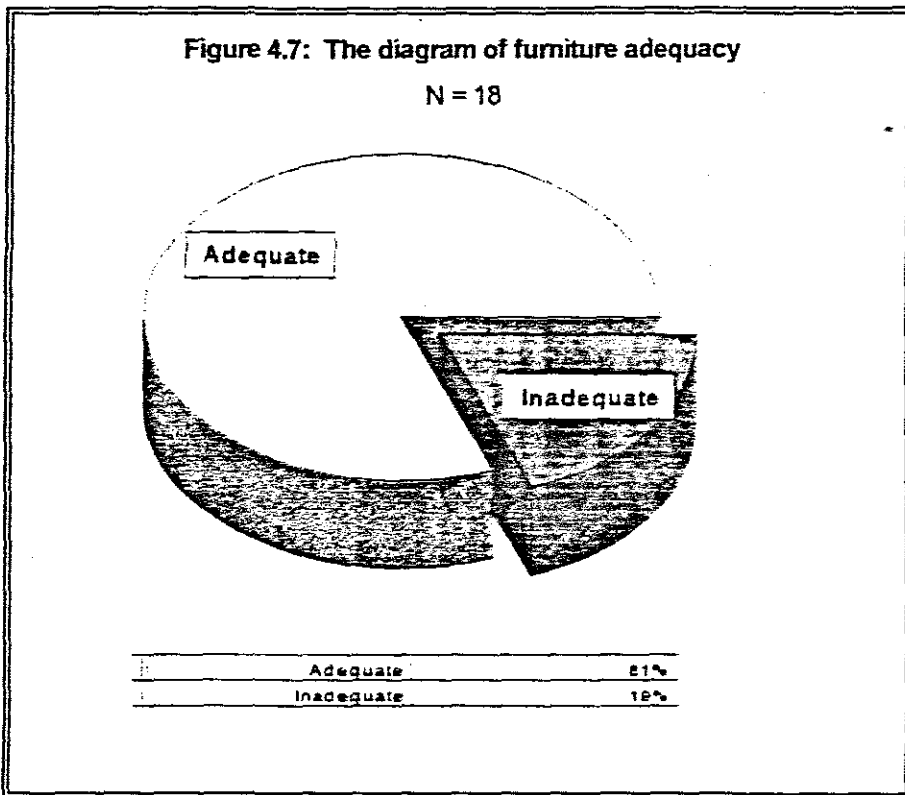
The former KwaZulu government schools had unclean buildings, broken windows and unclean grounds as compared to schools under the control of Department of Education and Training which were clean, well-paved and well cared for with maximum security.



Adequacy of the school was judged by numbers of children and ability of classrooms to accommodate children without overcrowding. Seventy six percent (14) of the schools met this criterion while 24% (4) of the schools were inadequate as they were overcrowded. The schools which were inadequate were found in peri-urban and rural areas and were former KwaZulu government schools.



The furniture was observed whether it was in good condition or broken, sufficient for the number of children, or insufficient. 57% (10) of the schools had suitable furniture as opposed to 43% (8) of the schools which had furniture that was insufficient and broken.



Most of the schools that formed the sample of this study had enough furniture as they constituted 81% (15) and 19% (3) of the schools had insufficient furniture. Schools that had insufficient furniture were in the peri-urban and rural areas of the former KwaZulu government.

**Table 5.1: Availability of the Sick-room**

Determining whether the sick-room is in existence and the type of sick-room, yielded the following:

N = 18		
Available	5	28%
Not available	13	72%
TOTAL	18	100%

The sick-room was available in 29% (5) of the schools administered by the former Department of Education and Training while no sick-rooms were available in 72% (13) of the schools which were formerly administered by the Department of Education and Culture, kwaZulu government schools.

**Table 5.1.1**

Item of trained teachers for first-aid (emergency) N = 18		
Trained teacher available	5	29%
Trained teacher not available	13	71%
TOTAL	18	100%

The researcher established if teachers were prepared to handle emergency situations using first-aid measures. Twentynine percent (5) of the teachers were trained or received first-aid training while 71% (13) of the teachers had not received first-aid training.

**Table 5.1.2**

<b>Item of subject Health Education on Timetable N = 18</b>		
Number of schools with health education on the timetable	10	57%
Number of schools without health education	8	43%
<b>TOTAL</b>	<b>18</b>	<b>100%</b>

This item determined if Health Education was taught in schools. Fifty seven percent (10) of the schools had health education as part of the subjects taught and in 43% (8) of the schools, health education was not taught. In most of the schools, the subject appeared on the class timetable and was not taught for reasons such as problem of terminology and unpreparedness of teachers to offer health education. In high schools health education was not provided, but a subject called Guidance with health aspects was offered.

**Table 5.1.3**

<b>Item of Clinic or Primary Health Care unit nearby the school N = 18</b>		
Primary Health Care / Clinic unit in the school	8	43%
No Primary Health Care / Clinic unit in the school	10	57%
<b>TOTAL</b>	<b>18</b>	

The researcher determined if there was a service nearby the school, which was providing health promotion and disease prevention.

Fourty three percent of the schools had a primary health care unit nearby the school which were erected and run by Bhekimpilo Trust. These schools were at the peri-urban areas. 57% of the schools had health services far from the school.

**Table 5.1.4**

<b>Item of First-aid Kit</b> N = 18		
Availability of First-aid Kit	5%	29%
First-aid Kit not available	13%	71%
<b>TOTAL</b>	<b>18%</b>	<b>100%</b>

The item of first-aid kit determined if the kit was available for emergency utilization.

In 29% of te schools, the first-aid kit was available and in 71% of the schools, it was not available. The unavailable of the first-aid kit was associated with the ex KwaZulu schools only.

**Table 5.1.5**

<b>Item of availability and type of water supply</b> N = 18		
Water available and type	2%	20%
Water not available and type	16%	80%
<b>TOTAL</b>	<b>18%</b>	<b>100%</b>

The item of water supply determined if water was available and also the type of supply and quality of water that was used by children at the school.

Twenty percent (2) of schools used river water, boreholes and at times, water was delivered by trucks from the Municipality of Durban. This includes areas such as Inanda and Indwedwe. Eighty percent (16) of the schools used tap water according to the geographical distribution of such schools i.e. they were either urban or per-urban areas. The schools that used river water which was sometimes contaminated were in the rural areas. These were schools formerly administered by the former KwaZulu government.

**Table 5.1.6**

<b>Item of telephone in the school</b>		
<b>N = 18</b>		
Telephone	10%	55%
No telephone	8%	45%
<b>TOTAL</b>	<b>18%</b>	<b>100%</b>

The item of telephone established if a telephone was any means of communication for safety measures and emergencies .

Fifty five percent (10) of the schools had a "Yes" response for telephone service. 45% (8) of the schools had a negative response. On investigating further as to which schools lacked the service, the researcher established that only the former Department of Education and Culture KwaZulu schools had a problem of telephone.

**Table 5.1.7**

<b>Item of Fax in the school</b>		
<b>N = 18</b>		
Fax	2%	10%
No Fax	16%	90%
<b>TOTAL</b>	<b>18%</b>	<b>100%</b>

The item of Fax also determined communication in emergency situations which could be medical emergencies. Ten percent (2) of the schools had a fax machine and were administered by former Department of Education and Training (DET) while 90% (16) of the schools did not have a fax machine and were all administered by the former Department of Education and Culture (KZG).

**Table 5.1.8**

Item of Electricity in the school N = 18		
Electricity	11%	61%
No Electricity	7%	39%
TOTAL	18%	100%

The item of electricity established if the school was electrified as more educational programmes could be provided. Sixty one percent (11) of the schools had electricity and 39% (7) of the schools lacked electricity, and all these were formerly administered by Department of Education and Culture (KZG).

The environmental and structural assessment of schools including the resources, was done in all schools by means of a checklist and observation method. The results presented indicate that there is gross inequality in the provision of school health services which may have negative effects on the future of school health services if this gap is not closed.

The researcher also obtained additional information from groups of school teachers, school nurses, school children and parents regarding their perceptions of the present school health education. The findings will be presented on the section of additional comments.

## **PRESENTATION, ANALYSIS AND INTERPRETATION OF DATA FROM STAKEHOLDERS**

This section of data presentation is confined to information obtained from the school teachers, school nurses, school children and parents within the catchment area of the study in the 'F' Region of KwaZulu-Natal Province.

### **Data collected from Teachers**

This section consists of data collected from teachers on the perceptions they had about school health education, their practices and teaching health education in schools. General demographics were first determined for all subjects before data collection. The table presented contains data collected from teachers.

## TEACHERS

**Table 5.2: General Demographics**

TEACHERS	GENERAL DEMOGRAPHICS AREA			
	Total	Urban	Peri-urban	Rural
	<u>90</u> %	<u>32</u> %	<u>27</u> %	<u>31</u> %
<b>Gender</b>				
Male	14	9	15	19
Female	86	91	85	81
<b>Age</b>				
21 - 31	30	41	30	19
31 - 40	48	47	48	48
41 - 50	14	9	15	19
51 -60	7	3	4	14
60+	1	0	3	0
<b>Class taught</b>				
Grades 1 - 4	26	19	26	38
Grades 5 - 7	32	31	22	36
Grades 8 - 12	42	50	52	26
<b>Qualifications</b>				
Unqualified	4	3	0	10
Junior Teacher's Certificate	22	13	26	29
Senior Teacher's Certificate	17	22	15	13
Degree	30	44	22	23
Other	27	18	37	25

### Sample Details

A total number of 90 teachers was approached in this study, 86% of which were females and 14% males. A majority of teachers was between the ages

21-40 (78%) and fewer teachers (22%) between the ages of 41-60. This trend was common in all geographical areas.

Teachers participating in this study were involved in teaching various grades of children. A majority of several teachers (38%) taught grades 1-4 and 50% of urban teachers taught grades 8-12 while a fewer percentage of teachers in all geographical areas taught grades 5-7. The sample had a young profile of teachers.

Generally all teachers had a sound educational background as 96% were professionals and only 4% of the teachers were unqualified. Out of the qualified teachers that comprised the sample 30% had degrees in education.

#### **Involvement of teachers in Health Education**

Health education is one of the non examination subjects that is, it is just taught without any formal type of evaluation. The tendency for such subjects is the allocation of less time in the timetable, teachers who do not like the subject do not teach it, the period for such a subject is used for other subjects that are regarded as important. In view of such problems mentioned health education lost its status and it was necessary to ask questions presented against this background.

Table 5.3: Willingness to be involved in Health Education

TEACHERS	SAMPLE DETAILS AREA			
	Total	Urban	Peri-urban	Rural
	$\frac{90}{\%}$	$\frac{32}{\%}$	$\frac{27}{\%}$	$\frac{31}{\%}$
Are you involved in teaching Health Education?				
Yes	57	41	63	68
No	43	59	37	32
If "No", would you be willing to be involved in Health Education				
Yes	84	81	89	84
No	16	19	11	16
The majority of the teachers ( $\frac{2}{3}$ ) in all geographical areas expressed strong willingness to be involved in health education. Only a few teachers (less than $\frac{1}{3}$ ) were unwilling to get involved in health education.				
Would you like to be involved in Workshops?				
Yes	92	84	96	97
No	8	16	4	3

Almost all the teachers who expressed willingness to be involved in health education were also willing to be involved in workshops.

Teachers' involvement in health education was distributed evenly between geographical areas. Almost half of the teachers were involved in health education and half were not involved.

Table 5.4: Parent notification of children's ailments by teachers

TEACHERS	SAMPLE DETAILS AREA			
	Total	Urban	Peri-urban	Rural
	<u>90</u> %	<u>32</u> %	<u>27</u> %	<u>31</u> %
Are teachers too busy to inform parents when children get sick at school?				
Yes	36	44	15	45
No	61	53	81	52
Unsure	3	3	4	3
The majority of the teachers felt obliged to inform parents on the children's ailments.				
Do you always received feedback when a child has been referred to a doctor?				
Yes	63	59	74	57
No	34	38	22	40
Unsure	3	3	4	3

Teachers were asked if parents informed them of the child's illness. About  $\frac{1}{2}$  of the teachers expressed that it was not always possible to receive feedback and only about  $\frac{1}{3}$  of teachers received this feedback from parents and very few teachers were unsure.

**Table 5.5 Willingness of Teachers to be trained on First-Aid Emergencies**

TEACHERS	SAMPLE DETAILS AREA			
	Total	Urban	Peri-urban	Rural
	<u>90</u> %	<u>32</u> %	<u>27</u> %	<u>31</u> %
Qualified teachers need to be trained for First-Aid Emergencies.				
Agree	84	88	85	78
Disagree	14	9	9	19
Unsure	2	3	3	3

The majority of the teachers, more than  $\frac{2}{3}$  in all geographical areas expressed a great need to be trained for first-aid emergencies and only a few teachers disagreed to the statement and others were unsure.

**Table 5.6** Topics that can be taught to school children by Teachers

TEACHERS	SAMPLE DETAILS AREA			
	Total	Urban	Peri-urban	Rural
	<u>90</u> %	<u>32</u> %	<u>27</u> %	<u>31</u> %
Good nutrition	49	47	59	30
Health care	54	50	56	58
Sexuality	36	44	41	23
AIDS	20	31	11	23
Teenage pregnancy	28	25	33	26
Drug abuse	29	31	22	32
Child abuse	26	16	30	32
Infectious diseases	20	25	15	19
First-Aid	21	22	15	26
Exercise	16	9	19	19

Teachers in all geographical areas placed emphasis on physical conditions such as good nutrition, health care, infectious diseases, exercise and first-aid.

Fewer responses were given in social conditions such as sexuality - HIV and AIDS, teenage pregnancy, drug and child abuse.

**Table 5.7 Detection of Health Problems of school children by Teachers**

TEACHERS	SAMPLE DETAILS AREA			
	Total	Urban	Peri-urban	Rural
	$\frac{90}{\%}$	$\frac{32}{\%}$	$\frac{27}{\%}$	$\frac{31}{\%}$
All health problems of school children are detected by teachers .				
Agree	30	38	30	31
Disagree	57	53	59	50
Unsure	13	9	11	19

Teachers are normally the first contact persons for school children. Missed health problems of school children by parents are identified by teachers. Questions related to health of school children ought to test if teachers were aware of this responsibility and were prepared for this responsibility. In table 5.10 almost half of the teachers disagreed that all health problems of school children are detected by teachers and this was true. Fewer teachers, about  $\frac{1}{3}$  in all geographical areas agreed to this question.

### 5.8 Perception that School Teachers as the key people to teach health education

TEACHERS	SAMPLE DETAILS AREA			
	Total	Urban	Peri-urban	Rural
	<u>90</u> %	<u>32</u> %	<u>27</u> %	<u>31</u> %
School teachers are regarded key people to teach health education.				
Agree	62	56	63	68
Disagree	29	28	30	29
Unsure	9	16	7	3

As professionals, the general public expects teachers to be able to teach health education.

Questions were asked if teachers perceived themselves as the general public does with regard to health education. About  $\frac{2}{3}$  of the teachers felt that they were the key people teaching health education in all geographical areas while  $\frac{1}{3}$  of teachers disagreed and a few teachers were unsure.

**5.9 Significance of late-coming and sleeping in class as perceived by teachers.**

TEACHERS	SAMPLE DETAILS AREA			
	Total	Urban	Peri-urban	Rural
	<u>90</u> %	<u>32</u> %	<u>27</u> %	<u>31</u> %
Late-coming and sleeping in class should be investigated by Teachers.				
Agree	74	78	74	71
Disagree	16	9	71	19.4
Unsure	10	13	10	9.7
Late-coming and sleeping in class are manifestations of social problems such as child abuse or hunger. More than ½ of the teachers felt this needed investigation while only a few disagreed and were unsure.				
Sick children should be assisted by teachers to take medication.				
Agree	77	75	78	78
Disagree	17	16	11	22
Unsure	6	9	11	0

Some school children have health problems such as tuberculosis and epilepsy which need medication during school hours. The teachers are with children during the day and have a responsibility to assist the children in taking such medication.

Table 5.10 Writing of reference letters for sick children by Teachers.

TEACHERS	SAMPLE DETAILS AREA			
	Total	Urban	Peri- urban	Rural
	<u>90</u> %	<u>32</u> %	<u>27</u> %	<u>31</u> %
For sick children at school, a teacher should write a letter to inform parents.				
Agree	75	72	74	77
Disagree	19	22	19	16
Unsure	6	6	9	7

A great majority of teachers felt that they had a responsibility to their charges and felt informing parents of their children's health status was part of a teacher's responsibility.

#### Need for Teachers to train in Health Matters

The growing health problems which occur in school children such as sexual abuse, drug abuse, teenage pregnancy and first-aid emergencies place a teacher in a position that warrants intervention. Teachers were asked questions related to the need for training against this background to open a dialogue with teachers and make training available.

**Table 5.11 Need for Teachers to train in health matters**

TEACHERS	SAMPLE DETAILS AREA			
	Total	Urban	Peri-urban	Rural
	<u>90</u> %	<u>32</u> %	<u>27</u> %	<u>31</u> %
Teachers do not have to acquire more skills in health education.				
Agree	37	53	15	39
Disagree	59	41	78	61
Unsure	4	6	7	0

The majority of the teachers in general believed that acquisition of skills to deal with some of the health problems which affected school children was necessary. This was a trend among peri-urban and rural teachers in the table presented, where teachers disagreed with the statement **negative responses** giving 78% and 61% respectively in these areas. Less than half of the teachers believed that no skills were required to deal with these problems while few teachers were unsure, particularly in urban and peri-urban areas.

### Need for a health profile of school children

School children come from different social backgrounds, some of which are deprived. An observant teacher who knows the health status of his/her children can make a contribution to the improvement of health education. A record of such children and those who must be assisted with their medication can be of help in a particular class.

Respondents were asked a question on the health profile of school children against this background.

A teacher can not **be** but can **make** a contribution!

**Table 5.12** Need for Teachers to keep a record of the Health Profile of school children in his/her class

TEACHERS	SAMPLE DETAILS AREA			
	Total	Urban	Peri-urban	Rural
	<u>90</u> %	<u>32</u> %	<u>27</u> %	<u>31</u> %
Teachers need to keep a record of the health profile of all children in a class.				
Agree	53	50	56	55
Disagree	36	44	37	26

Teachers in all geographical areas supported this idea. The table presented reflects that more than  $\frac{1}{2}$  of the teachers in all areas gave positive responses. About  $\frac{1}{3}$  of the teachers felt that the health profile of children was not necessary and this is observed with urban and peri-urban teachers who had the majority of negative responses, that is 44% and 37% respectively.

**Table 5.13 Need for a First-Aid box in every school**

TEACHERS	SAMPLE DETAILS AREA			
	Total	Urban	Peri-urban	Rural
	<u>90</u> %	<u>32</u> %	<u>27</u> %	<u>31</u> %
Each school must have a First-Aid box to deal with first-aid emergencies.				
Agree	91	94	93	87
Disagree	7	6	7	7
Unsure	2	0	0	6

Almost all the teachers in all the geographical areas strongly expressed the need to have a first-aid box to deal with first-aid emergencies in all the schools.

Few teachers however in all geographical areas were not in support of this idea where a few teachers in the rural areas were unsure.

**Perception of Teachers regarding participation of Nurses in Health Education and dealing with health problems of school children**

School nurses have always rendered a health service to school children for which they have received special training. These nurses however, cannot always be available in schools and at times the services cannot be provided when they have transport problems. Teachers on the other hand are also involved in health education programmes which are slightly different from

those services rendered by a nurse. It was against this background that children were asked questions related to participation of nurses in a school health programme.

**Table 5.14 Perception of Teachers regarding participation of Nurses in Health Education**

TEACHERS	SAMPLE DETAILS AREA			
	Total	Urban	Peri-urban	Rural
	$\frac{90}{\%}$	$\frac{32}{\%}$	$\frac{27}{\%}$	$\frac{31}{\%}$
Nurses are better able to deal with health problems of school children.				
Agree	78	84	74	74
Disagree	12	9	19	10
Unsure	10	7	7	16
There must be a nurse to attend to first-aid emergencies in a group of schools.				
Agree	78	78	70	84
Disagree	10	13	15	3
Unsure	12	9	15	13
Nurses must be employed to deal with health education in schools.				
Agree	87	91	74	94
Disagree	7	6	19	3
Unsure	4	3	7	3
Nurses' participation in school health education is essential.				
Agree	96	94	96	97
Disagree	4	6	4	3
Unsure	0	0	0	0

According to the tables presented almost all teachers in all geographical areas were strongly in support of nurses being better able to deal with health problems of school children:

- A nurse to attend to first-aid emergencies in a group of schools
- Nurses to be employed to deal with health education in schools
- Nurses' participation in school health education is essential
- Few teachers in all geographical areas had different opinions regarding the nurses' contribution in school health services.

**Table 5.15 Additional comments from Teachers**

TEACHERS	SAMPLE DETAILS AREA			
	Total	Urban	Peri-urban	Rural
	<u>90</u> %	<u>32</u> %	<u>27</u> %	<u>31</u> %
Health Education to be an Exam subject	44	44	56	34
Comm participation is essential	31	31	48	16
Teachers need training	31	31	37	25
Director for health education needed	21	13	33	19
No comments	24	28	0	48
Improve health education resources	21	19	30	16
Curriculum needs restructure	24	31	26	16
Multidisciplinary team approach	23	25	37	10
Relevant textbooks	21	21	30	13

Teachers were asked to give comments on some of the important issues.

They expressed the need for health education to be given the status it deserves and be an examination subject. This was observed with per-urban and urban teachers who formed the majority 56% and 44% respectively. Topics such as community participation a multidisciplinary team approach, improvement of resources for health education were high in the list.

## **NURSES**

**Table 5.16: Data Presentation, Analysis and Interpretation for School Nurses**

Information related to perceptions the nurses had about school health education was obtained. Nurses were approached for purposes of this study and only thirteen (13) nurses were available and were treated as a focus group. In-depth interviews were then conducted by the researcher through use of a structured interview schedule for data collection. To eliminate bias a tape recorder was used to collect data . The data collected was thereafter quantified for statistical reasons Items that were discussed and frequencies are presented.

**Item 5.16 Problems found among school children**

N = 13		
School Nurses	Frequency of Mention	
	Responses	%
Poverty / malnutrition	5	38
Child health neglect	5	38
Teenage pregnancy	8	62
Child abuse	6	46
Depression due to loss of parents	4	31
Emotional / physical abuse	3	23
Drug abuse	3	23
Poor performance at school	3	23
Emotional trauma due to violence	3	23
Infectious diseases	4	31
Dental caries	9	76
Eye problems	6	46
Worms	4	31
Ringworm	3	23
Undescended testes	8	62
Wax in the ears	4	31

**Problems found in school children**

In the list of problems that were found in school children, the following topics were prioritised: dental caries; child abuse; teenage pregnancy and undescended testes. Problems with less frequencies are also important and still need health education to reduce their occurrence.

**Table 5.17 Medical Referrals**

N = 13		
SCHOOL NURSES	Frequency of Mention	
	Responses	%
<b>To whom are the referrals made?</b>		
Hospitals	20	Over 100
Social Workers	7	54
Child Guidance Clinics	4	31
Clinics	4	31
Private Institutions	2	15
<b>Reasons for home Visits by School Nurses</b>		
Child abuses	4	31
Assessment of home-environment	2	15
To follow client referral	3	23
Increase health education	2	15
No home visits	2	15

### Medical Referrals

A majority of school nurses referred sick children to hospital and social workers respectively. Clinics were not used frequently as referral areas. Clinics are situated within the communities and offer free services. School children need to be encouraged to visit clinics for health problems.

Table 5.18 Health status of school children

N = 13		
SCHOOL NURSES	Frequency of Mention	
	Responses	%
Socio-economic status of the people		
Good	4	31
Average	4	31
Poor	5	38
General health status of school children		
Good	3	23
Average	7	54
Poor	3	23
Level of personal hygiene of school children		
Good	3	23
Average	8	62
Poor	2	15

### Reasons for home visits

Nurses enumerated reasons for home visits during a group discussion. The major reasons were child abuse especially sex abuse because the problem is usually chronic and is repeated with the person within the child's environment when the relatives of the child have not taken notice of this. Follow-up of clients was the next in the list.

### Socio-economic status of the people

Nurses have different opinions about the socio-economic status of the people in communities they serviced.

About half of the nurses felt that people had a good to average socio-economic status as well as those who felt that such people were poor.

### **General health status of the children**

Sixty three percent of the nurses felt that with free health services, expanded programme of immunization of children, funding schemes in schools, the general health status of children was average. This was also the case with the level of personal hygiene which was said to have improved to average.

Table 5.19 Problems of School Nurses

N = 13		
SCHOOL NURSES	Frequency of Mention	
	Responses	%
<b>Problems experienced by team members</b>		
Transport	10	77
Staff shortage	8	62
Poor attendance by school children	7	54
Children not taken to health resources after referral	9	76
Lack of support from teachers	8	62
Overcrowding	6	46
Lack of telephone / fax	4	31
<b>Suggestions to deal with identified problems</b>	7	54
Involvement of teachers and parents in health education	32	Over 100
Increase home visits	Over	
Training teachers for health education	13	100
Installation of telephones / faxes in schools	14	Over 100
Employment of social workers	9	76
Employment of psychologists	8	62
Increase staff for health education	11	85

**Problems experienced by team members**

A group of school nurses expressed concern regarding insufficient transport facilities which resulted in their limited visits to schools. Other problems which were top in the list were: staff shortage; lack of support from teachers during school visits; parents not being able to take children to health resources after referral by the nurse, including lack of facilities such as telephone and fax to make appointments.

**Suggestions to deal with identified problems.**

Sixty six percent of the teachers, sixty two percent of the nurses, sixty percent of the parents and fifty six percent of the children felt that teachers and parents should be involved in health education and home visits should be increased. Other topics that were given a priority were: training of teachers for health education; installation of telephones and faxes in schools; increased staff for health education and employment of social workers and psychologists in schools.

**Table 5.20 Topics of importance identified by Nurses**

N = 13		
SCHOOL NURSES	Frequency of Mention	
	Responses	%
<b>Topics that should be taught to school children</b>		
Sex education	9	76
Nutrition	11	85
AIDS and sexually-transmitted diseases	6	46
Drug abuse	5	38
Child abuse	8	62
Personal hygiene	10	77
Environmental hygiene	6	46
Self-help skills	8	62
Dental hygiene	10	77

In-depth interviews were to uncover information that would be necessary for restructuring school health education in the future. The frequency at which the item was mentioned indicated its importance during group discussions. Responses were over 100% for some of the items as the respondents were allowed to make more than one response per item.

#### **Topics that should be taught to school children**

The respondents enumerated the important topics during the group discussion. From the list the following topics were prioritized: infections; dental hygiene; personal hygiene; sex education; self-help skills and child abuse.

**Additional comments on school health education by the school nurses****Table 5.21 Additional comments on school health education by School Nurses**

N = 13		
SCHOOL NURSES	Frequency of Mention	
	Responses	
<b>Respondents made the following responses:</b>		
Nurses appreciate that a study is conducted in school health as it may bring about changes.	2	15
There is inequitable distribution of resources e.g. personal equipment and transport and nurses fail to serve school children adequately.	6	46
School health services appear to be less important to administrators.	4	31
School health services are organised by the regional hospital and supervised by a community health nurse who may not be interested in school health services.	2	15
A policy that specifies equitable distribution of resources should be put in place in South Africa.	6	46
Nurses should continue teaching health education and teachers need to work hand-in-hand with the nurses.	6	31
Teachers should know some of the important problems of childhood for proper referral of children to clinic or hospital.	4	31
Suggest a multi-disciplinary team	4	31
There should be equitable distribution of resources.	9	69
School health services need to be improved.	8	62
Participatory health education is essential.	6	46
Improvement of communication, telephone and fax	8	62
Appointment of direct fax for health education	6	46

### **Summary of the Responses by School Health Nurses**

School health nurses felt that there was inequitable distribution of resources such as personnel, equipment and transport. They expressed the need for a policy that specifies or emphasises equitable distribution of resources in South Africa.

Respondents still believed that they were the key people to offer school health education and they should continue teaching health education in schools. Health education programmes should be implemented, monitored and evaluated. A participatory approach to health education should be implemented which involves teachers, nurses, parents and school children.

## SCHOOL CHILDREN

**Table 5.22 General Demographics**

SCHOOL CHILDREN	GENERAL DEMOGRAPHICS AREA			
	Total	Urban	Peri-urban	Rural
	<u>90</u> %	<u>32</u> %	<u>27</u> %	<u>31</u> %
<b>Gender</b>				
Males	48	46	52	46
Females	52	54	48	54
<b>Age</b>				
8 - 12	32	49	19	25
13 - 16	46	40	33	64
17 - 20	18	9	41	7
21 - 24	3	2	4	3
25 - 30	1	0	3	1
<b>Person with whom the child lives</b>				
Mother	33	29	30	43
Father	9	9	11	7
Grandparents	14	14	19	11
Mother and father	37	43	33	32
Other relatives	7	5	7	7

### Discussion of General Demographics

A total of 90 pupils formed the sample for the study. The distribution of gender was 52% females and 48% males.

The ages of the sample were in majority between 8-16 years as 78% of the

participants were within this age group while only 22% of the participants were between the ages 17-30 years.

The sample had a sound family background as over 50% of the children lived with both parents and this occurred in all geographical areas. The next highest group of children stayed with their mothers only at least  $\frac{1}{3}$  of children in all the areas lived with their mothers.

**Table 5.23 The person who educated the child about health matters**

SCHOOL CHILDREN	GENERAL DEMOGRAPHICS AREA			
	Total	Urban	Peri-urban	Rural
	<u>90</u> %	<u>32</u> %	<u>27</u> %	<u>31</u> %
<b>Who educated you about health matters?</b>				
Teacher	66	69	63	64
Sister	10	14	4	11
Brother	8	11	3	7
Friend	6	9	4	4
Mother	57	66	49	53
Nobody	7	6	7	7

A majority of the children 66% mentioned teachers and mothers as their source of health education, while 10% of the children had received no health education at all. This occurred across all geographical areas.

**Table 5.24** Activities that were said to school children about keeping healthy

SCHOOL CHILDREN	GENERAL DEMOGRAPHICS AREA			
	Total	Urban	Peri-urban	Rural
	<u>90</u> %	<u>32</u> %	<u>27</u> %	<u>31</u> %
Good nutrition	67	77	52	61
Exercise	37	40	33	36
Regular bathing	27	23	33	25
Teenage pregnancy	29	23	37	29
HIV and AIDS awareness	24	14	44	18
Drug abuse	26	20	22	35
Good conduct	39	46	37	32
Cleanliness	41	45	30	46

Percentages exceed 100% in this table because of the multiple response nature of the questions. A majority of children enumerated a number of topics that they had learned about keeping healthy. Physical conditions had high responses than social conditions.

Table 5.25 Habits regarded as unhealthy by school children

TEACHERS	GENERAL DEMOGRAPHICS AREA			
	Total	Urban	Peri-urban	Rural
	<u>90</u> %	<u>32</u> %	<u>27</u> %	<u>31</u> %
Not washing body and clothes	47	54	30	54
Drug abuse	78	74	82	79
Unhealthy habits	21	23	26	14
Sex without condoms	31	23	33	40
Eating unhealthy food	26	31	26	18

A majority of the school children in all areas regarded drug abuse as an unhealthy habit (78%). This was followed by lack of cleanliness (47%), unprotected sex (31%) and eating unhealthy food.

The subject on sexuality education in corporate sex education and is generally taboo among Black people. The researcher then asked questions from children to determine if they had received any education on the subject. The main concern of the researcher was the growing incidence of sexual abuse and rape among this age group in which case awareness programmes are necessary. Questions were therefore asked against this background.

**Table 5.26 Determine whether the child received any information about growing up and functioning of the body**

SCHOOL CHILDREN	GENERAL DEMOGRAPHICS AREA			
	Total	Urban	Peri-urban	Rural
	<u>90</u> %	<u>32</u> %	<u>27</u> %	<u>31</u> %
<b>Has anyone talked to you about growing up and functioning of the body?</b>				
Yes	94	100	96	86
No	6	0	4	14

Sexuality education which includes education about sexual growth and development featured prominently. There was general awareness by people in all the geographical areas. Urban children had 100% responses followed by 96% responses in peri-urban areas. The slight decline in awareness among rural children may be accorded to lack of facilities such as Television and constraints caused by cultural values and beliefs such as when grandmothers who feature highly in sex education among girls, are not available.

**Table 5.27 The person who taught the child sexuality and sex education**

SCHOOL CHILDREN	GENERAL DEMOGRAPHICS AREA			
	Total	Urban	Peri-urban	Rural
	<u>90</u> %	<u>32</u> %	<u>27</u> %	<u>31</u> %
<b>Who gave the child information about growing up and functioning of the body?</b>				
Teacher	38	49	34	25
Nurses	9	9	7	13
Parents	33	23	35	46
Other relatives	15	20	15	8
Doctor	5	0	8	8

This table demonstrates that teachers played an important role in sex education. This is confirmed by 49% of the responses of school children. Parents were the next important group for sex education that was enumerated by 46% of the rural children. A few children mentioned nurses, doctors and other relatives as a source of sex education.

**Table 5.28 Important topics for health education**

SCHOOL CHILDREN	GENERAL DEMOGRAPHICS AREA			
	Total	Urban	Peri-urban	Rural
	<u>90</u> %	<u>32</u> %	<u>27</u> %	<u>31</u> %
AIDS and Std Awareness	52	49	52	57
Drug abuse	48	43	44	57
Growth and development	37	37	30	43
Cancer	20	23	26	11
Health care (personal and environmental hygiene)	22	31	11	21
Teenage pregnancy	38	31	48	36
Child abuse	32	26	41	33
First-Aid	13	17	4	18
Good conduct	19	23	15	18
Tuberculosis	18	20	26	7

The researcher determined that school children regarded social conditions as a priority rather than physical conditions. This is reflected in table 5.28 when conditions such as AIDS and AIDS Awareness, drug abuse, child abuse, teenage pregnancy were top in the list.

#### People who should teach school children health education

Health education has always flowed from an adult teacher to a child learner. The educators were obviously too old to be role models for children, a

situation which made health education to be perceived as part of adult by children. Children did not practice what they had learned and it had no impact to affect behavioural change for a healthy lifestyle. The researcher therefore found it necessary to involve school children in choosing the best people to teach school health education. Table 5.29 was therefore constructed against this background.

**Table 5.29 People who should teach school children health education**

SCHOOL CHILDREN	GENERAL DEMOGRAPHICS AREA			
	Total	Urban	Peri-urban	Rural
	<u>90</u> %	<u>32</u> %	<u>27</u> %	<u>31</u> %
Nurses	51	60	37	57
Teachers	44	57	26	46
Parents	31	34	19	39
Researchers	12	9	19	11
All above - multi-disciplinary	23	20	37	14

School children expressed strong willingness to be taught health education by nurses in schools, 60% of responses while teachers were also enumerated as relevant people to teach health education and obtained 57% approval in responses. Thirty one percent of children enumerated parents, while 23% mentioned a multidisciplinary approach which was to involve all professionals, school children and parents working in a team.

Table 5.30 Additional comments from school children

SCHOOL CHILDREN	GENERAL DEMOGRAPHICS AREA			
	Total	Urban	Peri-urban	Rural
	<u>90</u> %	<u>32</u> %	<u>27</u> %	<u>31</u> %
Teachers and nurses to teach health education	13	14	0	21
Children can teach each other health education	21	20	8	32
Children are scared to discuss personal problems	22	31	20	11
No comments	51	40	72	46

School children were given an opportunity to give comments in general and although the majority of the children (46%) had no comments, 32% expressed the need for school children to teach one another. These responses by school children give strength to the proposed model for school health education.

## PRESENTATION, ANALYSIS AND INTERPRETATION FROM PARENTS

## 5.31 General Demographics

PARENTS	GENERAL DEMOGRAPHICS AREA			
	Total	Urban	Peri-urban	Rural
	<u>90</u> %	<u>32</u> %	<u>27</u> %	<u>31</u> %
<b>Gender</b>				
Male	13	17	8	14
Female	87	83	93	86
<b>Age</b>				
21 - 31	13	10	25	8
31 - 40	41	53	25	42
41 - 50	28	30	21	31
51 - 60	10	3	8	17
	8	4	21	2
<b>Level of Education</b>				
Not educated	6	3	8	5
Grades 1 - 4	14	11	17	17
Grades 5 - 7	27	20	13	42
Grades 8 - 12	51	63	58	36
Post-matric	2	3	4	0

A total number of 90 participants were approached by the researcher in this study, 87% of which were females and 13% were males.

The ages of the sample were equally demarcated as 50% was over the age of 40 years and the other 50% was under the age of 40 years. The profile of

urban parents presented younger parents than in other areas.

The sample had a sound educational background as over 50% of parents proceeded over primary education and had a good literacy base. This was mostly, the case with urban and peri-urban parents while rural parents showed a poor educational background (64%) had not completed primary education.

### **Parent involvement in health education**

When people are willing to cooperate, the level of motivation is good and the results are good. The researcher in this study asked the questions on involvement in health education from parents to determine the possibility of cooperation as well as the success of the health education programme.

It was necessary to ask if parents would accept to be taught by their own children as some cultural constraints may be expected in rural settings where children have no say.

Involvement in community projects was also asked because parents who are involved in their communities are likely to have a significant contribution in health education.

Responses to these questions are presented in the table provided.

Table 5.32 Parent involvement in health education

PARENTS	GENERAL DEMOGRAPHICS AREA			
	Total	Urban	Peri-urban	Rural
	<u>90</u> %	<u>32</u> %	<u>27</u> %	<u>31</u> %
Does the parent show any willingness to be involved in health education?				
Yes	86	73	100	86
No	14	27	0	14
Would you be willing to be taught health education by your own child?				
Yes	82	83	96	75
No	18	17	4	25
Are you involved in community projects?				
Yes	40	27	38	53
No	60	73	63	47

Parents, particularly those from peri-urban areas expressed strong willingness to be involved in health education. Also a great majority were willing to be taught by their own children. Less than half of the parents were involved in community projects. This was essentially the case with urban parents.

Table 5.33 What topics should be taught to school children?

PARENTS	GENERAL DEMOGRAPHICS AREA			
	Total	Urban	Peri-urban	Rural
	<u>90</u> %	<u>32</u> %	<u>27</u> %	<u>31</u> %
Drug abuse	54	80	46	39
Discipline	52	57	42	56
Growth and Development	39	53	25	36
Cancer	22	17	25	25
Teenage pregnancy	43	60	38	33
Diabetes	17	3	25	22
Tuberculosis	26	17	25	33
AIDS and Std Awareness	64	50	67	75
First-Aid	30	23	29	36
Child abuse	24	23	25	25
Self-defence	31	27	46	25
Health care	56	43	67	58

Percentages exceed 100 because of the multiple response nature of the question, i.e. respondents could offer more than one response at a time.

Respondents expressed more concern about social or behavioural education than with physical ailments. For instance, topics such as AIDS and sexually-transmitted diseases (64%), drug abuse (54%), discipline

(52%) and teenage pregnancy (43%) were top on the list of subjects that parents felt children needed to be educated on. There were minor variations across residential areas with urban parents placing more emphasis on drug abuse and teenage pregnancy while rural and urban respondents expressed more concern with AIDS and sexually-transmitted diseases. Also, perhaps understandably so, peri-urban parents showed relatively less concern for discipline than was the case in more settled communities such as urban and rural.

As stated above, physical ailments received less emphasis as is demonstrated in the table. Health care in general was mentioned but 56%, specific sicknesses such as cancer, diabetes and tuberculosis were mentioned by less than a third of the respondents in each case. In each instance, the urban sample showed less interest in these topics than was the case with the rural and peri-urban counterparts, probably because health education centres are relatively more accessible in urban than is the case with rural and peri-urban areas.

Table 5.34 Additional comments from parents

PARENTS	GENERAL DEMOGRAPHICS AREA			
	Total	Urban	Peri-urban	Rural
	<u>90</u> %	<u>32</u> %	<u>27</u> %	<u>31</u> %
No comments	31	17	37	40
Children must be involved in health education	36	33	33	40
The school is the best place to offer health education	19	27	21	11
All groups to work together	28	33	26	33
Community participation must be encouraged	30	40	25	25
Nurses must visit schools	12	27	13	11
Parents need training	23	27	17	25

Although the parents expressed their willingness to participate in health education the majority did not have comments (40%). This was important for this study because it was strategising for the way forward. Rural parents however (40%) felt that school children should be involved in health education. Topics that were high in the list for parents irrespective of area of residence were community participation (40%), participatory health education (33%), training for parents to be made available.

This was a positive response from parents because previously it was difficult to conduct health education in schools and touch sensitive issues such as sexuality and sex education not knowing what the responses of parents

would be. Discussing with parents and making them express their concerns about the health of their children will make joint planning and implementation of health education programmes which will contribute to success in school health education in future.

**CHAPTER 6**

**CONSTRUCTION OF A HEALTH  
EDUCATION MODEL FOR SCHOOLS  
IN REGION "F" OF THE KWAZULU-  
NATAL PROVINCE**

## **CHAPTER 6**

# **CONSTRUCTION OF A HEALTH EDUCATION MODEL FOR SCHOOLS IN REGION 'F' OF THE KWAZULU-NATAL PROVINCE**

### **INTRODUCTION**

The present reforms in the health services in South Africa as a whole demand a closer look into the way in which health education is provided in schools. The identified health problems that are socio-economic in nature, the prevalence of epidemics some of which are incurable were a motivating factor in this study. It was also established that there was diversity of school health education in different grades, that is grades 1-4 and 5-7 benefited from school health education provided by school nurses, while grades 8-12 were not visited and did not benefit because the school health policy for school health services excluded these grades. Against this background, the researcher constructed a model for health education with the aim of improving health education in schools. This chapter will be devoted to the description of the model and its implementation.

### **DESCRIPTION OF A HEALTH EDUCATION MODEL FOR SCHOOLS IN REGION 'F' OF KWAZULU-NATAL PROVINCE**

The model of health education within Region 'F' was developed with consideration of models that have been used before. Such models include the professional model which emphasises clinical competence and the traditional model which uses research and scholarly activities.

For construction of the model for school health education, the researcher recognised the following elements in the academic model that is, teaching, research and service as important as clinical competence, because nursing is a practice profession where members are required to acquire expertise, the absence of which can endanger the lives of clients.

The researcher found it essential to develop a way to customise criteria used for academic advancement so that they reflect the need for school nurses not only to be good health educators and researchers but maintain expertise in health education which will provide the necessary role model of practice, excellence and contribute not only to preparing the next generation of nurses but also school teachers, school children, parents and community members.

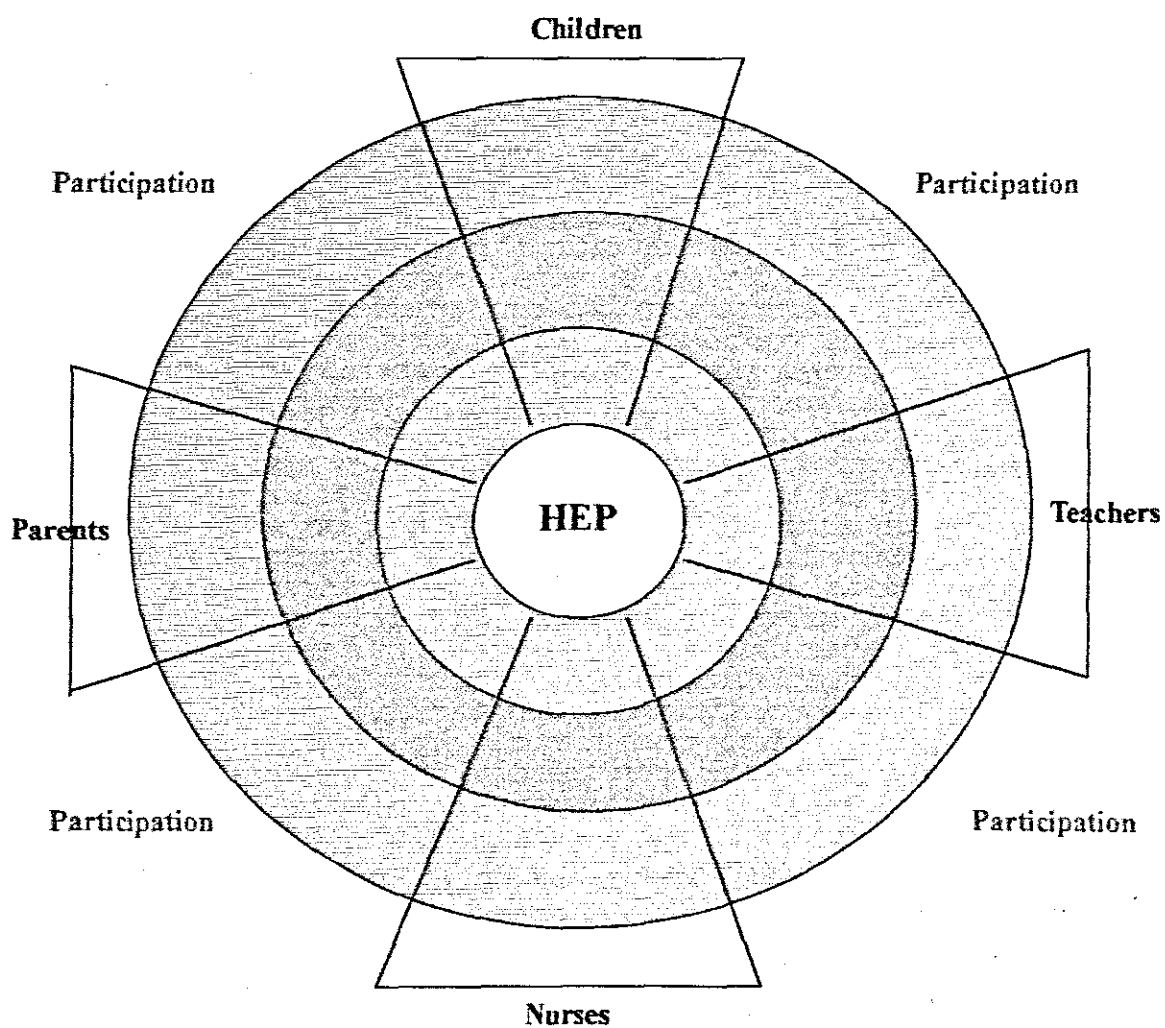
### **CONSTRUCTING A HEALTH EDUCATION MODEL**

To construct the model for school health education the researcher decided to use King's theory of goal attainment which views decision-making as a shared collaborative process where the nurse and client give information to each other. This mutual goal setting is a priority in the health education model for schools in Region 'F' of KwaZulu-Natal Province because it facilitates a participatory approach to health education and empowers school children and parents with the necessary skills for health education.

### **PHILOSOPHY**

The researcher considered the philosophical foundations of the health education model for schools in Region 'F' of KwaZulu-Natal which are: **man is capable of learning and changing behaviour**. Early learning results in good habits being added to individuals value systems. Involvement of man in decision-making also contributes to effective change of behaviour. All the elements that have been mentioned are a building block for the health

A GRAPHIC PRESENTATION OF THE "LAPPPNECT" MODEL



**HEP** : **HEALTH EDUCATION PROCESS**

- L** : learning through
- A** : active
- P** : participation of
- P** : pupils
- P** : parents
- N** : nurses
- E** : education and training of
- C** : communities and
- T** : teachers

education model.

## **THE NAME OF THE HEALTH EDUCATION MODEL FOR SCHOOLS IN REGION 'F' OF THE KWAZULU-NATAL PROVINCE**

The name of this model is 'Lappnect' Model the acronym for 'A'

L	-	Learning through
A	-	Active
P	-	Participation of
P	-	Pupils
P	-	Parents
N	-	Nurses
E	-	Education and training of children
C	-	Communities and
T	-	Teachers

### **APPLICATION OF THE 'LAPPPNECT' MODEL**

The model allows the school child to operate both in the school environment and home without constraints. Parents are also involved in participatory health education, including teachers and nurses. They share ideas in formulation of goals for health education and work towards attainment of the same goal which is health promotion and disease prevention.

The element of good interpersonal relations is important in the model, therefore special training in teaching health education in schools became necessary. A school according to King's theory is a social system with sub-systems like organisation, authority, power and decision-making. The researcher considered school children as an appropriate group to take decisions to be healthy, and to be involved in the model for school health

education from the time of needs assessment to the time of implementation of the model to be responsible for its organisation and to have authority and power to control it. This is in accordance with the current constitution 1997 in South Africa which stipulates that every citizen of this country has a right to the access of health.

### **THE 'LAPPPNECT' MODEL AND THE NURSING PROCESS**

The nursing process was used in the study to determine the needs of school children. The researcher found it important to construct a model that is problem-based, dealing directly with problems that school children know, and which they experience that is, their felt needs. The nursing process according to King (1990) consists of assessment, planning, evaluation and recording. These activities are discussed in the next section of this chapter indicating how mobilising for a health education model for schools in Region 'F' was done.

### **THE CONCEPT OF SELF**

The researcher in this study has the trust and belief on school children, that they are capable of a significant contribution in health provision and in saving the nation from preventable diseases such as AIDS, sexually-transmitted diseases and Tuberculosis. If the component of self is developed early enough and positively, the nation can be assured of healthy adults from today's children. This statement is supported by Jersilddo and King (1990) who state that the self constitutes a person's awareness of his individual's existence, this concept of who and what he is, as well as a system of ideas, attitudes and commitments. These aspects of self have been lost with some children in South Africa and they need to be replaced. The model for school health education is designed with the hope of rehabilitating the children who were affected by violence and social problems to make them aware of what they can do in our commitment to reshaping their lives.

Through the development of self according to King (1990) the children will be empowered with knowledge and skills to offer health education.

## **PREPARATION FOR IMPLEMENTATION OF A PARTICIPATORY HEALTH EDUCATION**

In this subsection the researcher has reason to mobilise for a health education model based on the scientific bases of the data obtained in Chapter Five of this study which is the reflection of the perceptions of the respondents about school health education. The process of preparing for implementation of the model includes all the activities the researcher was involved in while organising for a model. Discussed in this section is the organisation for a health education model for schools registration, participatory health education and the model of health education for schools in Region 'F' of KwaZulu-Natal Province.

### **Participatory health education**

The researcher in this study points out clearly that health education in schools has been ineffective, and this is confirmed by the results of the data analysis such as school nurses had problems to visit schools: teachers were not educationally prepared to offer health education in Chapter Five. A participatory approach to health education becomes a priority in the improvement of health education which means survival for our children in schools.

The researcher further explored the word **participation** in depth as described by various authors. This will facilitate effective application of the participatory model of health education in this region.

According to Brownlea (1987) cited in Skelton (1994:434) participation means getting involved or being allowed to becoming involved in a decision-making

process or delivery of a service. Participation can thus be seen as a collaboration process which involves the empowerment of patients and clients. Clarke and Latter (1992) see participation as involving anything from sharing information to being involved in decision-making or taking part in physical care. This is in keeping with the policy of Reconstruction and Development (RDP) in our country which emphasises development of those people into independence.

Participatory health education as a multidisciplinary and community-based process which involves empowerment of stakeholders involved in health education with knowledge obtained through training is also addressed. The process is facilitated by sharing of ideas and active involvement of recipients of health education. The researcher has a strong belief that school children and their parents are capable of being involved in decision-making or taking part in physical care.

The researcher further addressed participatory health education as a multidisciplinary and community-based process which involves empowerment of stakeholders involved in health education with knowledge obtained through training. The process is facilitated by sharing of ideas and active involvement of recipients of health education. The researcher has strong belief that school children and their parents are capable of being involved in decision-making. These actions are supported by Waterworth and Luke (1990) cited in Skelton (1993:434) who state that such actions provide clients with a "voice" or opportunity to have a say in what is happening.

### **Benefits of participatory Health Education**

The researcher in this study regards the benefits of participatory health education as community involvement. The WHO (1991) cited in Dennil, King, Lock and Swanepoel (1995:65) regard community involvement as a basic right to all people.

- Also responsible for building up self-esteem and encouraging a sense of responsibility as members are involved in decisions and actions affecting their health.
- Through community involvement, limited resources can be shared or be applied more appropriately to satisfy needs as identified by the local community and supplement formal health service.
- Community involvement in health can help to create political awareness and encouraging more people to get involved.

Sekgobela (1986:30) cited in Dennil *et al.*(1995) also confirms the ideas by the WHO and regards community participation as beneficial in the following ways:

- It provides the health team first-hand information about local conditions and needs.
- Community members become more committed to community projects, they consider important.
- The process gives the community an opportunity to exercise its democratic right to be involved in its own development.
- The community becomes more reliable, self-sufficient, self-confident and independent.
- Joint discussions between professionals and community members facilitate reduction in power differences and potential corruption.
- Planning is done according to local circumstances and available resources.

- It supplements community service.

The researcher in this study saw the opportunity and the possibility of exploring the benefits listed by the authors mentioned. Should this proposed participatory health education through health education model have positive results, the whole area of Folweni and Umbumbulu will benefit the majority and researcher is optimistic that it will spread to other regions of KwaZulu-Natal and other Provinces in South Africa. The view that the researcher holds about community participation supports the view by Shisana (1995), cited in Dennil et al (1995) that communities should be motivated to become involved and if such stimulation of the community is undertaken with a genuine desire to guide them towards self-reliance empowerment of the community will be achieved.

#### **Organization for a health education model for schools in Region 'F' of KwaZulu-Natal Province**

Participatory health education needs a co-operative effort from the side of the professionals who will have expertise and ability to motivate communities participate in the project. The task of the researcher in this study was to motivate both professionals and community members to participate in the project and coordinate the process of this participation.

#### **Networking and Lobbying for the 'Lappnect' Model**

The researcher's involvement in other community projects facilitated the process of networking and collaboration with professionals from the Public Sector and from the non-governmental organisations that are involved in community welfare. Such bodies that were consulted are the following:

- Bhekimpilo Trust which provides primary health care services in peri-

urban areas within Region 'F' of KwaZulu-Natal Province.

- Valley Trust is a non-Governmental Organisation (NGO) that provides Primary Health Care to the communities, training facilities for professionals and communities and Nutrition project which was the aspect that was required for the model.
- Mzamo Child guidance Clinic as a non-Governmental Organisation (NGO) that provides Rehabilitation programmes for children with learning problems, the cerebral palsied and maladjusted children. The organization also runs a Remedial School for such children at Woodlands, a suburb in Durban.
- The Go-getters' Club at Umlazi. This group of people have a common interest in preventing smoking among school children and was referred by the Health Systems Trust, a body that promotes and supports research through funding projects and encouraging research collaboration.

## **GOVERNMENT INSTITUTIONS**

The governmental institutions involved included hospitals and clinics. The school where the project is implemented is controlled by the Department of Education KwaZulu-Natal Province.

### **Child Protection Unit**

A child protection unit consists of a group of officers that specialise in crime committed to children such as child abuse, rape and any maltreatment of a child. In the team they explained what they do to investigate such crime and how children should be protected.

### Child Line

Child line is a crisis intervention body manned by social workers and volunteers who attend to complaints from children who are maltreated, changed or raped. They help the child in a crisis situation and the team advertise themselves, including their work so that more children can be helped.

### Saspcan - South African Society for Prevention of child abuse and neglect

Is an organisation of social workers whose function is child protection. Cases of child abuse or suspected child abuse are investigated and referred to the police.

### **PROFESSIONALS INVOLVED IN THE PROJECT**

The professionals that are directly involved in the project were mobilised by the researcher to share their different expertise within the multidisciplinary team which includes school children and community members.

The professionals that contributed in this project include social workers, nurses, police, lawyers, clinical psychologists. It is hoped that even more professionals will join as the project gains popularity.

### **MOTIVATION OF SCHOOL CHILDREN TO PARTICIPATE IN THE PROJECT**

The researcher's belief that school children are at risk for health problems and that health education should start during their early years at school before harmful habits are well entrenched, has become a reality in this study. This statement is based on problems school children reported and the willingness expressed by them to be part of this project.

It was easy for the researcher to mobilise the school children in the project because the problems were identified with the children and not for the children. They felt that they were helpless and needed help so the level of motivation and cooperation was high.

### Mobilisation of parents and the general community

The researcher has addressed meetings with parents and obtained their perceptions and concerns regarding health education in schools. It was therefore easy to mobilise them into the multidisciplinary team.

### **ORGANIZATION**

Organization is defined by Swansburg (1990:264) cited in Booyens (1993) as the grouping of activities for the purpose of achieving objectives or goals, the assignment of such groupings to a manager with authority for supervising each group and the defined means of coordinating appropriate activities with other units, horizontally and vertically, which are responsible for accomplishing organisational objectives. According to Andrews (1982:38) organization is a human activity where certain functions are delegated to individual members and where the administrator must coordinate the delegated functions to ensure orderly and systematic work performance.

The researcher in this study determined the philosophy, objectives of the project and work procedures for the health education model. The participants were oriented on the work procedures and the reporting systems. Coordinators were selected in each group for effective supervision, recording and reporting. Prerequisites for effective community participation, the concept of a multidisciplinary team was explained and the expectations for individual members.

## PLANNING FOR INSTITUTING A SCHOOL HEALTH EDUCATION MODEL

The process of instituting a model for school health education required consultation with people, networking and planning.

According to Anderson (1990:143) cited in Dennil *et al.* (1995) the following prerequisites for community participation should be met before cooperative involvement of people and their organisations in community programmes can succeed.

- Specific goals that are to be achieved should be stated.
- The nature of the required involvement.
- Contributions required from the individuals and organisations involved.
- Determine what you will benefit and what the community will benefit.
- Community participation.
- Coordinated local inter-sectoral health programmes.
- Acceptance by all concerned of the multidimensional nature of the extended health team which acknowledges the community as an active member of the team.
- Mutual support between the government and the community reinforced by mutual information feedback.
- Clarity about health and health-related needs of the community.
- Effective integration of health into overall community development.

- Recognition of socio-economic constraints.
- Achievement of the community in the control of financial, human and other resources necessary for the provision of health services.

The researcher considered all the prerequisites mentioned during the planning phase so that individuals remained motivated to form a multidisciplinary team. The action plan included a programme to launch the Model for School Health Education.

## **INSTITUTION OF THE MODEL FOR SCHOOL HEALTH EDUCATION**

It is necessary for a professional to obtain information regarding an innovation from people with wide experience on the subject. The researcher read books on modules and model construction, visited a centre for school health services run by the University of Colorado in Denver, United States of America, and consulted experienced academics in the field like professors and experienced nurses in the clinical field. The model was to be implemented in schools so the experienced teachers and Inspectors of Education were consulted and more information was obtained by the researcher.

This section discusses the pilot project, reasons for selection of the area, assessment of the health needs of the children and preparation of different categories of personnel, parents and children for **child-to-child and peer education in schools**.

### **Piloting the Model**

The researcher then had an important decision to make as to where the model would be implemented as a pilot project. There were eighteen schools

that formed a sample for the study. A school to pilot the project was chosen on merit. There are certain characteristics that attracted the researcher to believe that the school would be capable of piloting the project.

This area is an informal settlement consisting of sub-economic houses and shack houses at the outskirts of Umlazi which is a township in the urban area in Durban. Folweni area is a sub-section of Umbumbulu, the neighbouring rural area. The area has been surrounded with violence for the past 5 years which was partly political and partly tribal wars and people having unsettled disputes regarding the land issue. The area is a mixture of urbanised houses and shack houses. The crime rate is high, including problems such as employment and poverty in most families. Such characteristics are usually associated with social problems and ill health.

#### **Choice of a school - Hlengisizwe Lower Primary School**

The school where the pilot project was implemented is a lower primary school in the Folweni area which was randomly targeted for the study. The researcher determined perceptions of school children, school teachers, school nurses and parents about school health education with the aim of improving service. Meetings were conducted by the researcher with school children, teachers and parents.

The school children were open to discuss their problems and sounded in need of help. Some were emotional when relating their problems which ranged from physical, social and sexual abuse or rape. The parents' meetings had 76% attendance rate and teachers were very cooperative. The pilot project was then implemented based on the information given.

### **Determining the needs of school children**

Although the school children had indicated that they needed help, the researcher wanted to further explore with regard to who needed help, and to what extent the help was needed and who could provide this type of help. The researcher and the nursing students doing primary health care visited the school after permission was granted to do health assessment, screening and referrals. A situational analysis of the health profile of these children is presented.

### **A SITUATIONAL ANALYSIS OF THE HEALTH PROFILE OF SCHOOL CHILDREN AT HLENGISIZWE LOWER PRIMARY SCHOOL - FOLWENI**

This section of work focuses on the health status of children enrolled in this school for 1996. The researcher determined the needs for children in this school by exploring the problems that were experienced by school children in this school and if the health resources were utilised. The total number of children in this school was 1 300 and the number of affected children was 223, that is 17%.

**A Table for Health problems and utilisation of resources by school children**

☐ Health Problems	No of children affected		Reported		Not Reported	
	No	%	Yes	%		
Bilharzia	40	17			No	
Asthma	8	4	Yes			
Breathlessness	15	7	Yes			
Breathlessness and cough	51	23			No	
Dental problems	40	18				
Chest pain	15	7			No	
Eye problems	26	12			No	
Fainting	2	0,5	Yes			
Epilepsy	4	2			No	
Speech problems	1	0,5			No	
Victims and those who witnessed rape and sexual abuse	19	9				
<b>TOTAL</b>	<b>223</b>	<b>100</b>	<b>3</b>	<b>1,5</b>	<b>6</b>	<b>3</b>

The table presented shows a highest percentage of respiratory problems reported and not reported (23% : 51) only 4% of cases were diagnosed as asthma and the rest were undiagnosed. This information reflects the attitudes of people at Folweni area towards illness and disease. When chest pain and cough was not severe, it was not reported or it was not regarded as serious illness. The distance travelled to the hospital and the economic factors cannot be excluded.

Dental Caries also presented a high percentage (18% : 42), Bilharzia was the next problematic condition with a percentage of (17% : 40). All cases of Bilharzia were not reported and the reasons may also be associated with accessibility and affordability of health services.

Eye problems constituted (12% : 26) of the cases. Epilepsy (2% : 4) and had not been reported, fainting constituted (0,5% : 1) of the cases and this was reported. Victims of rape and sexual abuse including those who witnessed

these crimes constituted (9% : 19) cases. The total number of unreported cases was ,3%. This increases the need for a multi-disciplinary and participatory approach to school health education.

All problems identified were categorised, names and addresses of children handed over to appropriate health team experts to deal with the presenting problems.

## **EVALUATION**

According to Posavac and Carey (180:6) cited in Stanhope and Lancaster (1990:202) evaluation is defined as the methods used to determine whether a service is needed and likely to be used and whether the service helps the people in need. The authors further state that this type of evaluation is done to assess if objectives are met or planned activities are completed and is referred to as formative evaluation.

The researcher in this study used formative evaluation. The evaluation of the effectiveness of school health education in determining the perceptions of school teacher, school nurses, school children and parents was done at a preliminary level of the study to determine whether the model of school health education was needed and was likely to be used and whether the model would help the people in need of empowerment to promote health and to conduct health education themselves.

This evaluation was used by the researcher to determine if the philosophy stated in Chapter 6 was achieved. The smooth running of the project has contributed to good interpersonal relations with teachers, the community of Folweni, the nurses and school children. Communication has been facilitated and there is a spirit of cooperation that prevails.

Health education is participatory as desired and spelled out in the

researcher's philosophy. There is community participation at this stage. Summative evaluation will have to be done when the model is in full force and has been adopted by many schools in KwaZulu-Natal.

The researcher then used the steps of the nursing process discussed by King (1990). The first step of assessment was concerned with health screening, the second step was planning as to what was to be done with the conditions identified as parents had to be notified, the police were to be notified in cases of rape or sexual abuse and referral to hospital. Referrals were made even to the neighbouring social workers and children received treatment or assistance to the presenting problems which was, the third step of nursing process. Evaluation of health problems will be done as a continuous activity from time to time. Records have been kept on the health status of children, the steps taken or advice given.

## **Section Two**

This section of the chapter addresses the issue of preparation of different categories of personnel, parents and children for child-to-child and peer education in schools. The model is also evaluated in terms of the goals in order to be in line with King's theory of goal attainment which forms the scientific basis of the study.

### **TRAINING OF PERSONNEL, CHILDREN AND PARENTS**

The introduction of the model made it important to develop training programmes of the stakeholders in school health education. Various groups were given dates when training would start and the programme was identical to all professionals except for training programmes of parents and children which had to be translated into Zulu. The programme was divided into two sections. The first section involved:

Orientation of the group about participatory health education, group members having to know each other, using icebreakers, assertiveness training, development of communication skills.

- \* Health Education, the aims, objectives and methods including techniques of health education.
- \* Construction of health education messages, for example on prevention of drug and alcohol abuse, sexual abuse and rape.
- \* Nutrition education, e.g. food preparation, essential foods, importance of traditional dishes.

The second section of training included:

- \* Child-to-child education - concept and methodology. Peer group education and the common conditions that affect children and adolescents, e.g. teenage pregnancy, HIV and AIDS, sexually transmitted diseases and sexuality.

## **EVALUATION OF OBJECTIVES OF THE MODEL**

As part of formative evaluation, the objectives of the model for health education in the schools was evaluated to determine if they have been achieved by the model constructed. The following objectives were formulated and the researcher determined if they were achieved:

- \* To promote active involvement and participation of school children in planning and practice of health education in schools.
- \* To promote child-to-child education, thereby making health a valued asset amongst school children.

- \* To provide a multidisciplinary approach to health issues.
- \* To determine the training needs of children, parents, teachers and nurses and provide training for empowerment with skills for school health education.

These objectives have been attained through utilisation of the 'Lappnect' Model in the schools within Region 'F' KwaZulu-Natal. The model is an answer to all citizens of South Africa particularly those who stay in deep rural and underserved areas. The model is in line with the Government initiatives. According to the Government Gazette: (1977:84) health services should be comprehensive and integrated with priority focus on the vulnerable, and communities should have adequate knowledge and skills which promote positive behaviour related to child health.

The 'Lappnect' model is the most appropriate approach to promote child and community health through participatory efforts of stakeholders. It therefore addresses the felt needs of communities.

The Government Gazette (1997:31) further stipulates that skills, experience and expertise of all health personnel should be optimally used. The 'Lappnect' model addresses this aspect as all members of the school health team are paired in order to train and support other professionals, children and parents. In this way, responsibility and accountability for health education and health promotion will be increased.

The 'Lappnect' model provides an opportunity for parents and children including communities to actively participate in planning, managing, monitoring and evaluating school health education which is also in line with the present government policy as stipulated in the Government Gazette (1997:22). The model is an example of a primary health care approach which

contributes to availability and appropriateness of health education that will promote health and prevent disease among communities.

The government policy in the Government Gazette (1997:133) further call for establishment of partnerships with all stakeholders, especially communities to achieve the optimum health of the nation. This principle has been addressed by the 'Lappnect' model. The model is appropriate and addressed the present needs of South Africans during the period of transformation.

## **CONCLUSION**

Implementing a model of school health education at Folweni has been a worthwhile experience for the researcher and the stakeholders. There is joy and determination to work. The placards that were carried by children and parents on the day the model was launched have various messages that are conveyed to us as health professionals that we should extend our hands and help those future sons and daughters of Africa that need our help. The time has come for Health professionals to form partnerships with communities and other stakeholders when it comes to health education. The 'Lapnect' model fosters this type of partnership.

**CHAPTER 7**

**SUMMARY CONCLUSIONS AND  
RECOMMENDATIONS**

## **CHAPTER 7**

### **SUMMARY, CONCLUSION AND RECOMMENDATIONS**

#### **INTRODUCTION**

The study explored perceptions, school teachers, school nurses, children and parents had about health education in schools. The responses of the groups mentioned revealed a need for a participatory health education approach. Review of literature, general observation, interviews and the use of questionnaires established that children are a group that is at risk for ill-health and needed to be empowered with appropriate knowledge. After acquisition of this knowledge, the child would not only promote health and prevent disease but would also teach other children and peers including their families.

#### **SUMMARY**

A descriptive study including a situational analysis of the school environment was conducted in selected schools, hospitals and organisations responsible for school health education in Region 'F' KwaZulu-Natal Province. The schools under the former Department of Education and Training and former KwaZulu Department of Education and Culture were used for the study.

**The objectives of the study were:**

- To determine perceptions of school teachers, school nurses and parents about health education in schools and health problems of school children.
- To ascertain if there was diversity in rendering school health education among grades 1-4, 5-7 and 8-12.
- mobilise the different stakeholders in a joint understanding of school health education through workshops and training;

construct a multi-disciplinary and participatory model for school health education in region 'F' of the KwaZulu-Natal Province which emphasises child-to-child and peer group education.

The objectives of this study were achieved as it is indicated in the section for conclusions. Conclusions are all discussed according to assumptions made in chapter one of this study.

The conclusions of this study are drawn from the following assumptions:

1. The present school health education system does not meet the needs of school children in that it excludes professionals from other health related fields such as clinical psychologists who could form a multi-disciplinary team and does not allow for joint consultation.
2. The school health education programme is not accessible and acceptable to the children and parents, while the frequency with which health education is conducted by teachers and school nurses is questionable.

3. There is no model for school health education that is multi-disciplinary and participatory. From this study the following conclusions were made based on the assumptions presented:

### **Absence of a co-ordinated Initiative through a multi-disciplinary Team**

According to the government gazette (1997:18) the primary health teams should include a mix of health personnel with appropriate skills to deal with common conditions.

The findings of this study revealed that health personnel did not work as a team. The teacher or school nurse referred a sick child to a specialist and feedback was not always possible.

Letters of referral were written by 49% of the teachers while 44% of the teachers raised concern that there was no feedback after the child was referred to a clinic, hospital or specialist. This is an indication that there was lack of communication with parents, doctors, physiotherapists, clinical psychologists and social workers who could form a team and attend to children's problems jointly. The health education system excluded professionals from other health related fields.

According to the experiences of school (health) nurses social conditions as occurring to school children constituted 51% while physical conditions constituted 49%. Social problems were ranked as child abuse 50%, teenage pregnancy 42% including conditions associated with poverty.

According to Schurick (1995:33) the rate of child abuse in South Africa is appallingly high and the problem is estimated to 1 478 110 child abuse cases

by the year 2000. This author further states that such abused children will, if not adequately helped, grow up to be maladjusted adults with mental problems requiring expensive services and welfare organisational support.

### **Accessibility, Acceptability of Health Education Programmes and Frequency of School Health Education**

According to 77% of the school nurses, transport problems caused school visits and health education to be infrequent. School nurses also expressed concern that resources for school health education were inequitably distributed as in some areas resources were scarce.

This was also observed by the researcher that in deep rural areas there was lack of transport and poor roads were common which contributed to some of the schools not being visited by school nurses. This can be seen as a factor that contributed to the acceptability of health education by both school children and parents in these areas. All the groups that formed the sample for this study expressed their concern that school children should be taught about sexuality, sexual abuse and teenage pregnancy. This was an indication that the school health education programme that was in place did not address these problems making health education less effective and inaccessible.

In support of problems of accessibility and frequency of school health education, teachers felt that the school programme should give enough time for health education.

This study also revealed that there were no fixed programmes for school health education. There was no responsibility and accountability for school health education among health professionals. Nurses visited schools for

health education infrequently while teachers were not educationally prepared for health education with the subject receiving less time on the school programme as it was not an examination subject.

Teachers expressed a strongly need for continuing and in-service education so as to increase their knowledge and involvement in health education. From the findings discussed, it is concluded that school nurses cannot deal with the problems identified in the absence of a multi-disciplinary team of professionals and effective referral and communication system.

#### **Absence of a Model for School Health Education that is multi-disciplinary and participatory**

Findings of this study indicated that there were school health education policies by the former KwaZulu Department of the Natal Provincial Administration as shown in Annexures 3.1 and 3.2 attached to this study. While the health education existed on a small scale in KwaZulu-Natal there was no indication of a coordinated participatory approach by all stakeholders. Although school health education in Region 'F' of KwaZulu-Natal showed some slight deficiencies, when this study was conducted, all groups that participated in the study showed a strong willingness to cooperate and form participatory health education. This is confirmed by 48% of teachers, 46% of nurses, 37% of children and 44% of parents who recommended a participatory approach to health education.

When discussing approaches to health education Dreyer, Hattingh and Lock (1995:99) state that a community health nurse deals with groups of people and she must assist them to define their problems, needs and to decide on appropriate action to promote healthy living and community well-being. In this study, a suitable approach that was chosen was child-to-child and peer

education to address this practice.

This is an approach that empowers children with knowledge and skills so that they can be involved in peer group teaching. Young and Durston (1992:163) support this finding by stating that child-to-child education is a programme that has produced materials especially in health education to help older children to look after their younger brothers and sisters. It is specifically suited for social problems identified in this study such as sexual abuse, lack of sexuality knowledge or education; drug and alcohol abuse as older children can give guidance to younger children.

### **Need for Retraining and Education of Professionals**

Based on the findings of this study 77% of nurses who participated in this study indicated that staff development on school health education was available. Approaches such as child-to-child education was lacking. Such nurses expressed strongly that workshops on this approach should be made available.

The majority of school teachers indicated that they attended lectures on nutrition education and AIDS awareness. Such teachers expressed unhappiness caused by difficulty in implementing what they had learnt. This could receive attention if a model for school health education is implemented because it is multidisciplinary. All members of the team work together and receive assistance and guidance from colleagues.

### **Limitations**

In any study, the researcher is forced to deal with some unexpected problems no matter how meticulous the planning and execution has been. In most studies, the limitations relate to conceptual definitional and methodological

problems.

The study set out to establish a comprehensive health education model. A variety of models were reviewed to structure a relevant theoretical base. In such an exercise replication poses problems in the process of selective adoption and independent development of a theoretical point of view. Highly experienced researchers fathom the problems of academic rigour better than the beginners. The researcher does not lay claim to the high level but to an honest and diligent attempt to create the theoretical direction for the study.

The subject health education itself is wide and no attempt was made to particularise the meaning.

Methodologically certain problems occurred imposing limitations as follows

- The sample came from different categories i.e. teachers, nurses, children and parents, all of whom had to respond basically to the same concepts.

The heterogeneity of the sample in some respects did result in two varied responses.

- Coupled with this, the representatives of the sample suffered in that the original plan had to change. Permission to conduct the study was not forthcoming as originally planned.
- Part of the sample that is, males showed lack of motivation and unwillingness to participate at times. Perhaps the perception that females were predominant might have been responsible for this type of behaviour.
- Some parents did not attend interview sessions. Instead some sent

representatives who were sometimes not as committed as parents.

## **RECOMMENDATIONS**

In terms of the findings and conclusions of the study the researcher makes the following recommendations:

- The issue of unification of school health services in South Africa should follow a careful assessment of all school services and upgrading of those services from underprivileged sections of the population.
- Child-to-child education and peer group education should be instituted from primary to high school level where peer group education should be continued.
- Training of staff, that is teachers, nurses and all members of the multi-disciplinary team should include child-to-child and peer group teaching.
- Training of parents and children for a teaching role in health education should be done.
- A model for health education should be implemented in all schools and such a model should be evaluated from time to time.
- The 'Lappnect' model should be marketed to other Provinces of South Africa and its adoption be facilitated.
- Health education policy needs to be restructured and an organogram suitable for the South African situation should be developed.

- An advisory body responsible for control of health education should be considered or constructed.
- Consultancy in School Health Education should be initiated and the Regional Deputy Directors of school health services should be introduced, based on the regions and not on the old dispensation of houses e.g. House of Assembly, House of Delegates, House of Representatives and ex KwaZulu.
- training for school health education should spread to teacher training colleges.
- Resident nurses in boarding schools should be employed.
- A nurse should be employed to provide services in each school or few schools such as two or three schools as nurses play a major role in the teaching of health education in schools.
- For nurses, short courses in school health promotion through health education should be accepted and get approval by the South African Nursing Council.
- The government should consider improving human and material resources for health education such as more staff and cars.
- Department of Education and the Department of Health should work towards instituting a curriculum that will empower children to participate actively in child-to-child and peer education.
- Funding of the project should be arranged with those departments and

the government.

- Research in the field of school health education should be promoted and supported.
- Implementation of the ex KwaZulu Health Education Policy re-Training of Personnel for Health Education in Annexure 3.2 of this study should be done.

### **Conclusion**

Findings of this study have highlighted concerns of the sample for the study with regard to the importance of school health education and the contributions that each group was making towards health education. Some groups felt that they did not contribute much to school health education and opted for re-training and education to be more useful in future while some groups felt that shortage of resources contributed to inaccessible and inequitably distributed health care, the situation which needs immediate attention. This is a challenge to school teachers, school nurses, school children and parents to improve school health education thus promote health and prevent diseases which are preventable. Participatory health education through a health education model 'Lappnect' Model is inevitable. This is about time that training of trainers and trainees for child-to-child and peer education is established and funded for successful implementation of the model. The model is in line with the principles of primary health care and the principles of the National Health system.

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**ANNEXURE 1.1**

**QUESTIONNAIRE**  
**THE MODEL OF SCHOOL HEALTH EDUCATION**  
**IN SCHOOLS AROUND REGION 'F'**  
**OF KWAZULU-NATAL PROVINCE**  
**An Instrument Investigating Perceptions**  
**of Teachers about School Health Education**

- \* Kindly respond to the questionnaire provided.
- \* Confidentiality will be maintained.
- \* Please answer all questions by putting a cross (X) in the appropriate block

**TO BE ANSWERED BY SCHOOL TEACHERS**

**SECTION 1: PERSONAL DETAILS**

1. Sex

Male  Female

2. Age Group

21-30  31-40  41-50  51-60  Over 60

3. Area of employment

Urban  Peri-urban  Rural

4. Class taught

Grades 1-4

Grades 5-7

Grades 8-12

5. Qualifications

Not qualified

Junior Teacher's Certificate

Senior Teacher's Certificate

Degree

Other

**SECTION 2: INVOLVEMENT OF TEACHERS IN TEACHING HEALTH EDUCATION**

6. (i) Are you involved in teaching health education?

Yes  No

(ii) If "No", do you intend to be involved in teaching health education?

Yes  No

7. Would you like to be involved in workshops for upgrading health education schemes?

Yes  No

8. Enumerate topics that can be taught to school children.

.....  
.....  
.....  
.....

9. What do you think about the following in school health education?  
*(Please make a cross (X) in the appropriate blocks indicating your response)*

Item	Agree	Disagree	Unsure
1. All health problems are detected by teachers in school.			
2. I regard the school teachers to be the key people to teach health education.			
3. Late arrival of school children and sleeping in class must be investigated by the school teacher.			
4. Sick children must be assisted by teachers to take medication during school-time.			
5. For each sick child the teacher must write a letter to inform the parent and advise him/her to take the child to the clinic or hospital.			
6. The teacher is too busy to inform the parent about the child's illness, e.g. headache.			
7. It is not always possible to receive feedback from the child after seeing the doctor.			
8. A teacher must be trained to attend to first-aid emergencies in each school.			
9. Qualified teachers have to be trained in health matters to handle health problems of school children.			
10. Teachers do not have to acquire more skills in health education.			
11. A record of the health profile for children should be kept by the class teacher.			
12. Each school must have a first-aid box.			
13. I regard nurses' participation in health education in schools as essential.			
14. Nurses must be employed to deal with health education and health problems in schools of Region 'F' KwaZulu-Natal Province.			
15. Nurses are better able to deal with health problems of school children.			
16. There must be a nurse to attend to emergencies in schools.			



**ANNEXURE 1.2**

**QUESTIONNAIRE FOR SCHOOL NURSES**

**QUESTIONNAIRE**  
**THE MODEL OF SCHOOL HEALTH EDUCATION**  
**IN SCHOOLS AROUND REGION 'F'**  
**OF KWAZULU-NATAL PROVINCE**

- \* Kindly respond to the questionnaire provided.
- \* Confidentiality will be maintained.
- \* Please answer all questions by putting a cross (X) in the appropriate block

**TO BE ANSWERED BY SCHOOL NURSES**

**SECTION 1: PERSONAL DETAILS**

1. Age

2. Sex

Male  Female

3. Area of work

Urban  Peri-urban  Rural

4. Occupation

Professional nurse   
Staff nurse   
Nurse Auxiliary   
Other

**SECTION 2: PRACTICE OF SCHOOL HEALTH SERVICE**

5. Which problems are generally found among school children? Give examples of each.

.....  
.....  
.....  
.....

6. How are medical referrals done and to which agencies are the referrals made?

.....  
.....  
.....  
.....

**SECTION 3: HOME VISITS**

- (i) State reasons for homes visited.

.....  
.....  
.....  
.....

- (ii) State whether:

Urban       Peri-urban       Rural

8. What is the socio-economic status of people in the area?

Good  Average  Satisfactory  Poor

9. What is your impression about parental control of the family?

Good  Average  Satisfactory  Poor

10. What is the general health status of the children?

Good  Average  Satisfactory  Poor

11. What is the level of personal hygiene of the children?

Good  Average  Satisfactory  Poor

12. (i) How many staff members undertake health services?

1       2       3       4       5       6

(ii) State the role of each member:

Professional nurse	<input type="checkbox"/>
Staff nurse	<input type="checkbox"/>
Nurse Auxiliary	<input type="checkbox"/>
Other	<input type="checkbox"/>

13. List the usual problems that you experience.

.....

.....

.....

.....

14. List your suggestions to deal with the problems enumerated in number 13.

.....

.....

.....

.....

**SECTION 4: HEALTH EDUCATION IN SCHOOLS**

15. What do you think about the following regarding health education in schools?

Item	Agree	Disagree	Unsure
15.1 Children are actively involved in Health Education.			
15.2 School children should be taught health education techniques to teach families and friends.			
15.3 I easily teach school children health education techniques.			
15.4 Nurses are frequently able to visit schools for health education.			
15.5 I feel comfortable if teachers are utilised to teach health education to school children.			
15.6 An improved school health service by nurses is essential.			

16. Enumerate the health problems which frequently occur in schools.

.....

.....

.....

.....



**ANNEXURE 1.3**

**QUESTIONNAIRE FOR SCHOOL CHILDREN**

**QUESTIONNAIRE**  
**THE MODEL OF SCHOOL HEALTH EDUCATION**  
**IN SCHOOLS AROUND REGION 'F'**  
**OF KWAZULU-NATAL PROVINCE**

- \* Kindly respond to the questions below.
- \* Confidentiality will be maintained.
- \* Please answer all questions by putting a cross (X) in the appropriate block

**TO BE ANSWERED BY SCHOOL CHILDREN**

**SECTION 1: SCHOOL CHILDREN**

1. Age
  
2. Sex  
Male       Female
  
3. Place of Residence  
Urban       Peri-urban       Rural
  
4. With whom to you live?  
Mother   
Father   
Grandmother   
Mother and Father   
Other relatives

**SECTION 5**

5. Who has educated you about health habits?

- Teacher
- Mother
- Sister/Brother
- Friend
- Nobody

6. List the things that you were told regarding keeping healthy.

.....

.....

.....

.....

7. List the habits which you regard as unhealthy

.....

.....

.....

.....

8. (i) Has anyone talked to you about the functioning of the body while growing up?

Yes  No

(ii) If "Yes", who? .....

9. Would you like to be trained to teach your family and friends health education?

Yes  No

10. Have you ever been involved in teaching health education?

Yes  No

11. What topics do you think are important in health education?

.....  
.....  
.....  
.....

12. List categories of people that should participate in health education.

.....  
.....  
.....  
.....

13. What comments or additional information do you have regarding school health education?

.....  
.....  
.....  
.....

**ANNEXURE 1.4**

**QUESTIONNAIRE FOR PARENTS**

**QUESTIONNAIRE**  
**THE MODEL OF SCHOOL HEALTH EDUCATION**  
**IN SCHOOLS AROUND REGION 'F'**  
**OF KWAZULU-NATAL PROVINCE**

- \* Kindly respond to the questions below.
- \* Confidentiality will be maintained.
- \* Please answer all questions by putting a cross (X) in the appropriate block

**TO BE ANSWERED BY PARENTS**

**SECTION 1: PARENTS**

1. Age Group

21-30       31-40       41-50       51-60       Over 60

2. Sex

Male  Female

3. Residential area

Urban       Peri-urban       Rural

4. What is your standard of education?

No formal education   
Std 5 or lower   
Std 6 to 10   
Tertiary education

5. Are you involved in community projects?

Yes  No

6. Would you like to be involved in health education in schools?

Yes  No

7. Would you appreciate being taught health education by your own child?

Yes  No

**SECTION 2: TOPICS TO BE TAUGHT AT SCHOOLS**

8. What topics should be taught to school children?

- 8.1 Good conduct
- 8.2 Discipline
- 8.3 Menstruation
- 8.4 Avoidance of early sex
- 8.5 Teenage pregnancy
- 8.6 Diabetes
- 8.7 Tuberculosis
- 8.8 AIDS
- 8.9 Hypertension malnutrition

8.10 What comments or additional information do you have regarding the practice of school health education?

.....  
.....  
.....

**ANNEXURE 2**

**A CHECKLIST FOR A SITUATIONAL  
ANALYSIS OF SCHOOL ENVIRONMENT**

**CHECKLIST FOR RECORDING INFORMATION FROM THE RESPONDENT ON THE PREVIOUS AND CURRENT PRACTISES OF SCHOOL HEALTH EDUCATION INCLUDING -**

**OBSERVED STATUS QUO BY THE RESEARCH**

**INFORMATION OBTAINED THROUGH OBSERVATION BY THE RESEARCHER**

- \* Is there a sick-room in the school?
- \* Is there a first-aid kit in the school?
- \* Has any teacher been trained on first-aid?
- \* Is the subject "Health Education" catered for in the timetable?
- \* Is the Clinic/Primary Health Care within walking distance?

**ANNEXURE 3**

**ANNEXURE 3.1**  
**SCHOOL HEALTH EDUCATION POLICY**  
**NATAL PROVINCIAL ADMINISTRATION**

## **NATAL PROVINCIAL ADMINISTRATION**

### **SCHOOL HEALTH SERVICES**

#### **1 POLICY**

Provision of School Health Services within the Framework of Governmental Policy to school children (5-16 years) in the Department of Education and Training as well as pupils in Special Schools.

#### **2 LEGISLATION**

The authority to render a school health service in Black Schools is vested in the following legislation.

- 2.1 Black Schools, Education and Training Act, 1979 (Act 90 of 1979) Regulation 831.
- 2.2 The new Health Act of 1994.
- 2.3 The Nursing Act No 50 of 1978 (as amended).
- 2.4 The Child Care Act of 1983.
- 2.5 Special School Act.
- 2.6 Regulation under the Public Health Act, 1919 (Act No 36 of 1919) Regulation No 190505 of 16 November 1962 (as amended).
- 2.7 Public Service Act of 1994.

#### **3 OBJECTIVES**

Promote health through health education and the creation of a healthy school environment so that the pupil can benefit optimally from learning experiences provided at a school. Detect ill-health or deviation from the accepted norm at an early stage and refer to suitable agencies for correction or treatment so that serious or chronic mental or physical ill-

health is prevented.

Minimise the development of anti-social behaviour by referring social problems to suitable agencies for care and follow-up.

4. In order to attain these objectives, the Natal Provincial Administration provides for.

- health screening by nurses.
- referral system to hospital, clinics, social services and welfare agencies.
- a home follow-up service either by the school nurses themselves, where no other health service exists, or by referring to existing services.
- the inspection of schools, school premises by nurses.
- a planned goal-directed health education programme.
- a uniform record and individual school card system.
- prevention of the spread of communicable diseases by control measures e.g. exclusion from schools.

## 5 NORM

5.1	Nurse/Pupil Ratio	Health Examination Pupils	:	50 pupils
	Norm per day	Screening	:	80 pupils

## 6 TARGET GROUPS

6.1 Full examination of the following:

6.1.1 Pre-primary pupils (those attached to schools)

6.1.2 Class II/SSB

6.1.3 Std V

6.1.4 Special schools

6.2 Screening: Visual, hearing.

Reference: Natal Provincial Administration KwaZulu-Natal Province.

**ANNEXURE 3.2**  
**HEALTH EDUCATION POLICY**  
**FORMER DEPT OF HEALTH KWAZULU**

# HEALTH EDUCATION POLICY IN KWAZULU-NATAL

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5.3 Development of pilot demonstration project

## 2 HEALTH EDUCATION IN KWAZULU

### 2.1 Health Education

The following definition is accepted: "Health education embraces the sum total of all the experiences of the individual that help to change and influence his health attitude and behaviour. In health education we recognise that the many experiences of the individual have great impact on how he behaves, thinks, feels and what he asks and does about his health. Health education also includes creating an awareness of constraints in society which impede the development of a healthy lifestyle and helps to develop strategies to overcome these constraints. The concept also includes adult education." (WHO, *et al.*, 1966-1986).

### 2.2 Prevention as a Priority

There are many health problems facing the people of KwaZulu. There include malnutrition, infections such as tuberculosis, high infant mortality, and accidents. A close examination of the causes and prevention of these health problems shows that health education can play an essential part in improving health in KwaZulu by promoting, *inter alia*:

- healthy practices e.g. correct infant feeding; breastfeeding
- improved uptake of services e.g. ante-natal care; family planning
- early detection of diseases e.g. Tuberculosis
- awareness of the necessity of preventing sexually-transmitted diseases,

# 1 INTRODUCTION

## The need for a Health Education Policy

A health education policy is needed to:

- show a clear Department of Health commitment to health education by means of such a national policy statement.
- communicate to other departments the objectives and priorities for the health education service.
- provide the basis for forward planning in the allocation of effort and finance, for procurement of material and manpower resources.
- create the framework within which health education staff can carry out their work with a minimum of delay, as well as a protocol for their communication with other departments and agencies.
- develop the health education potential of different agencies outside the health education services, e.g. schools; community development, agriculture and welfare agencies; radio and TV services.
- set guidelines for the training of personnel in health education, as well as for a career structure and conditions of service.
- develop primary health care policy further.

including AIDS

- early and adequate home treatment of conditions such as diarrhoea
- appropriate use of medication
- development of essential basic services e.g. water supply, clinics
- self-help projects related to health.

### 2.3 Health Education as part of a Comprehensive Strategy

Health education can only be effective if it is part of a comprehensive strategy for improving living conditions of the people of KwaZulu. Other necessary measures include:

- ensuring equitable allocation of resources
- development of an effective primary health care system
- socio-economic inputs to improve quality of life, e.g. employment, food production, educational services, water supply and sanitation.

### 2.4 The present situation

There is considerable scope for increasing both the quantity and quality of health education carried out in KwaZulu:

- many health workers tend to emphasise curative health care

- the amount of health education carried out by other government and voluntary agencies is limited
- existing health education has not always been effective for many reasons:
  - \* the health education may have been poorly planned
  - \* it may be based on outdated, inaccurate and conflicting information
  - \* there is a heavy emphasis on formal didactic teaching methods
  - \* there is a lack of training for health education
- although field workers may feel that there have been improvements, there has been little serious evaluation of existing health education.

### **3 HEALTH EDUCATION STRATEGIES**

#### **3.1 Characteristics of Effective Health Education**

Effective health education should:

- meet the needs of those whose health is the worst: the poorer the least educated; rural communities; peri-urban and urban slum dwellers
- be based on a sound understanding of the epidemiology of her problems, as well as the sociology of communities involved
- be accurate and consistent in advice
- emphasise participatory learning and the group discussion method
- involve individuals and communities in identifying and tackling their own

problems

- work through government agencies (health, education and agriculture services) as well as voluntary agencies and other bodies (political parties, lay organisations, churches etc.): health education is everyone's job
- be accompanied by an effective school health programme including:
  - \* school health services
  - \* school environments that promote health
  - \* a comprehensive school health education programme
- be supported by well-produced, accurate and tested learning aids (pamphlets, books, pictures, films, slides, flip-charts etc)
- be supported by the careful use of the mass media
- be evaluated and the results of evaluation used to plan future activities.

### **3.2 Health Education at the community level**

A wide range of persons and bodies, both government and non-government, should be involved in health education: literally any person or group doing health-related work can have a health education function:

## **ANNEXURE 5: LETTERS OF REQUEST TO UNDERTAKE RESEARCH FROM THE FOLLOWING:**

- 5.1 The Department of Health
- 5.2 The Department of Education
- 5.3 The Circuit Inspectors
- 5.4 The Nursing Services Manager of the Hospital
- 5.5 The Medical Superintendent
- 5.6 The Professional Nurse-in-charge of School Health
- 5.7 The Professional Nurses-in-charge of Relevant Clinics
- 5.8 The School Principals
- 5.9 The Parents
- 5.10 Application form for conducting a Research Project in the KwaZulu-Natal Department of Education and Culture

09 JANUARY 1996

**ATTENTION : MS JOAN MAHER**

KWAZULU-NATAL DEPT. OF HEALTH  
PRIVATE BAG X9001  
PIETERMARITZBURG  
3200

Dear Ms Maher

**REQUEST FOR PERMISSION TO UNDERTAKE RESEARCH**

I hereby request permission to undertake research in the Durban functional region of KwaZulu-Natal. The title of the study is "**A Health Education Model For Schools in the Durban District.**" The project is for the fulfilment of a requirement for a Doctoral degree that I am pursuing with the University of Zululand.

The research activities will include obtaining of information regarding the perceptions of school nurses and members of the Health Education Team, from school children and parents of the children who will form the sample of the study. Questionnaires and interviews will also be directed to the Nursing Services Managers in charge of School Health Services of ex-KwaZulu-Natal Provincial Administration and City Health Department to determine School Health Education practices in different racial groups with the aim of identifying the differences which may lead to future planning and standardization of School Health Services in KwaZulu-Natal.

The research proposal and samples of questionnaires are enclosed. A copy of the catchment area where the research will be done and details of the methodology is also provided.

A special permission from the Department of Education has been requested by the researcher to facilitate involvement of teachers, school teachers and parents.

Thank you.

Yours sincerely

MRS DORIS NZIMAKWE  
DN/zvn

**ANNEXURE 5.2**  
**APPLICATION FORM FOR CONDUCTING**  
**A RESEARCH PROJECT IN THE**  
**KWAZULU-NATAL DEPARTMENT OF**  
**EDUCATION AND CULTURE**

11 JANUARY 1996

ATTENTION : MR SHERWOOD

THE ACTING SUPERINTENDENT GENERAL  
DEPARTMENT OF EDUCATION AND CULTURE  
PRIVATE BAG 9044  
PIETERMARITZBURG  
3200

Dear Sir

REQUEST FOR PERMISSION TO UNDERTAKE RESEARCH IN SCHOOLS WITHIN  
THE DURBAN DISTRICT.

REF: 2/12/2/3

In response to your letter of the 29.11.95, kindly receive questionnaires that will be administered to school children and parents.

The methodology for data collection will include interviews, and completion of questionnaires. School nursing teams will be utilized for assistance.

Concerning the assistance that Mr Sherwood can offer, I will appreciate any form of assistance but I am sure the questionnaires will be helpful to determine the type of help I may need.

Thank you.

Yours sincerely

MRS D. NZIMAKWE  
DN/zvn

**ANNEXURE 5.3**

20 June 1995

The Circuit Inspector  
Attention: Mr A.B. Dlamini  
Pinetown Circuit  
P/Bag X54303  
DURBAN  
4000

Dear Mr Dlamini

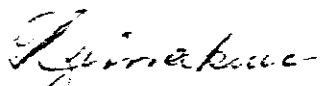
REQUEST FOR PERMISSION TO UNDERTAKE RESEARCH IN THE  
SCHOOLS AROUND PINETOWN CIRCUIT

I hereby request permission to conduct a study entitled "A Health Education Model for Schools in the Durban District". The study is for the fulfilment of the requirements for a Doctoral degree which I am pursuing with the University of Zululand supported by the Medical Research Council.

I have informed the System's Director of the Department of Education in Pretoria and the Provincial Minister of Education about the matter.

The summary of the Project is embosed. I also request Mr Dlamini to kindly furnish me with a list of schools within the Pinetown Circuit to facilitate sample selection.

Yours Sincerely

  
D. NZIMAKWE (MRS)  
SENIOR LECTURER

**ANNEXURE 5.4**

**University of  
Universiteit van  
Zululand:**



Private Bag X10  
Privaatsak X10  
ISIPINGO 4110  
031 9075055  
6-28081 SA  
FAX: 9073011

**UMLAZI** EXTRAMURAL DIVISION  
BUISTEMUURSE AFDELING

09 JANUARY 1996

**ATTENTION : MRS D. RADEBE**

SENIOR NURSING SERVICE MANAGER  
PRINCE MSHIYENI MEMORIAL HOSPITAL  
P/BAG X07  
MOBENI  
4060

Dear Sir

**REQUEST FOR PERMISSION TO UNDERTAKE RESEARCH**

I hereby request permission to undertake research within the schools served by Health Education Teams from Prince Mshiyeni Hospital.

The title of the study is "A Health Education Model For Schools in the Durban District." The project is for the fulfilment of a requirement for a Doctoral degree that I am pursuing with the University of Zululand.

The research activities include obtaining information regarding the perceptions of school nurses and members of the Health Education Team, from school children and parents of the children who will form the sample of the study. Questionnaires and interviews will also be administered to the Nursing Service Manager in charge of the School Health Services provided by Prince Mshiyeni Hospital.

The proposal for the study and samples of questionnaires are enclosed.

Thank you.

Yours sincerely

MRS DORIS NZIMAKWE  
DN/zvn

**ANNEXURE 5.5**

09 JANUARY 1996

THE MEDICAL SUPERINTENDENT  
PRINCE MSHIYENI MEMORIAL HOSPITAL  
P/BAG X07  
MOBENI  
4060

Dear Sir

**REQUEST FOR PERMISSION TO UNDERTAKE RESEARCH**

I hereby request permission to undertake research within the schools served by Health Education Teams from Prince Mshiyeni Hospital.

The title of the study is "A Health Education Model For Schools in the Durban District." The project is for the fulfilment of a requirement for a Doctoral degree that I am pursuing with the University of Zululand.

The research activities include obtaining information regarding the perceptions of school nurses and members of the Health Education Team, from school children and parents of the children who will form the sample of the study. Questionnaires and interviews will also be administered to the Nursing Service Manager in charge of the School Health Services provided by Prince Mshiyeni Hospital.

The proposal for the study and samples of questionnaires are enclosed.

Thank you.

Yours sincerely

MRS DORIS NZIMAKWE  
DN/zvn

**ANNEXURE 5.6**

10 JANUARY 1996

THE PERSON IN CHARGE  
SCHOOL HEALTH SERVICES DEPT.  
PRINCE MSHIYENI MEMORIAL HOSPITAL  
P/BAG X07  
MOBENI  
4060

Dear Madam

**THE MATTER OF CONDUCTING A RESEARCH STUDY REFERS**

I hereby request for your assistance including your School Health Education Teams. I am pursuing a Doctoral degree with the University of Zululand and I am included in a research study entitled " **A Health Education Model For Schools in the Durban District**", which is a requirement.

The research activities include obtaining information regarding the perceptions and perspectives of school nurses and members of the Health Education teams from school children and parents of the children who will form the sample of the study.

The Senior Matron of Prince Mshiyeni Hospital, the Medical Superintendent and the Department of Health for the Province of KwaZulu-Natal have been consulted regarding the above matter.

Thank you.

Yours sincerely

MRS D. NZIMAKWE  
DN/zvn

**ANNEXURE 5.7**

02 MAY 1996

ATTENTION : MRS MKHIZE

THE MATRON  
KWA-DABEKA CLINIC  
KWA-DABEKA

Dear Mrs Mkhize

THE MATTER OF A SCHOOL HEALTH EDUCATION RESEARCH REFERS :

I hereby inform you of the research project entitled "A Health Education Model for Schools in the Durban District." The project is done with the University of Zululand and is for the fulfilment of the requirements for a Doctoral degree.

Research activities include collection of data from the teachers, school health nurses, school children and parents. A questionnaire will therefore be provided for each category. A service of meetings will take place to facilitate this research. I therefore request a meeting with your staff involved in school health education on 13 June 1996 at 09H00. I intend to visit Phephile Public Primary with the School Health Team.

Permission for the study has been granted by the Dept. of Health and a letter of confirmation is enclosed including my supervisors' note.

Thank you

Yours sincerely

MRS D NZIMAKWE

**ANNEXURE 5.8**



UNLAZI EXTRAMURAL DIVISION  
BUITENMUURSE AFDELING

18 MARCH 1996

THE PRINCIPAL  
KWA-SANTI PUBLIC SECONDARY SCHOOL  
PINETOWN CIRCUIT

Dear Colleague

I hereby request permission of conduct the investigation for my study entitled "A Health Education Model For Schools in the Durban District."

The process has been approved by the Department of Health, Department of Education and your Circuit Inspector. Your school has been selected to represent the Secondary and High Schools in the Circuit and it forms the sample of this study.

A brief summary of the project and methodology is enclosed. The activity consists of at least 2 meetings with teachers, parents, school children and the school nurses doing your area.

The data for these meetings will be arranged by the school nurses. All teachers will attend the meeting for awareness of the whole process.

**The requirements for the activity.**

1. A class list will be a requirement as it will facilitate sample selection.
2. For L.P. Schools, a Std.2 class list will be required with all pupils.
3. For H.P. Schools a Std. 4 classlist will be used.
4. For combined schools, a Std.5 classlist will be used.
5. For J.S.S. a Std 8 class list will be used.
6. For a High School a Std.10 classlist will be used.

Details of student selection will be communicated at the meeting.

I am .

Yours sincerely

  
MRS D. NZIMAKWE

**ANNEXURE 5.9**

**University of  
Universiteit van  
Zululand:**



Private Bag X10  
Privaatsak X10  
ISIPINGO 4110  
T 031 9075055  
6-28081 SA  
FAX: 9073011

**UMLAZI** EXTRAMURAL DIVISION  
BUTEMUURSE AFDELING

21 October 1996

Dear Parent / Guardian

There is a research project on School health services which is aimed at improving health services in schools .

You are therefore requested to give permission for you and your child.....attending school at.....  
School to participate in the study

Parents will be invited to attend a meeting at the school on the 28th of October 1996 at 09h00 to give their own views about what to teach and how to teach Health Education to school children

The research is being conducted to all children attending school with your child and only 10 children were chosen randomly

Yours sincerely

.....  
Mrs D. Nzimakwe (Researcher)

Senior Lecturer

**ANNEXURE 5.10**

APPLICATION FOR CONDUCTING A RESEARCH PROJECT IN THE  
KWAZULU-NATAL DEPARTMENT OF EDUCATION AND CULTURE

*Approval for conducting a research project which involves the KwaZulu-Natal Department of Education and Culture or any office or teaching institution under the jurisdiction of this Department, will only be considered once the following details have been supplied.*

PLEASE COMPLETE THE FOLLOWING

(To be completed by applicant)

*NOTE: Approval is normally given only for research which is being conducted for degree/diploma purposes.*

1. SURNAME: NZIMAKWE TITLE: MRS

2. FULL NAMES: DORIS

3. ADDRESS:

.....

.....

.....

CODE: .....

4. TEL. NO. (W) 907-5055 (CODE) 031

TEL. NO. (H) 42-8518 (CODE) 031

5. OCCUPATION: LECTURER - DEPARTMENT OF NURSING

6. EMPLOYER: UNIVERSITY OF ZULULAND

7. DEGREE/DIPLOMA/OTHER for which the research project is being conducted. e.g. (M.Ed.Psych)

DOCTORAL DEGREE

8. TITLE of the paper/dissertation/thesis

A HEALTH EDUCATION MODEL FOR SCHOOLS IN THE DURBAN DISTRICT OF THE KWAZULU-NATAL REGION

.....

.....

9. PURPOSE of the research project

TO CONSTRUCT A HEALTH EDUCATION MODEL WHICH WILL BE USED BY ALL SCHOOLS IN THIS REGION. THE MODEL IS COMMUNITY BASED, INTER-DISCIPLINARY AND INTERSECTORAL.

10. Name and address of the University/College where you are registered as a student

Name: UNIVERSITY OF ZULULAND

Address: PRIVATE BAG X1001 KWADLANGEZWA

CODE: 3880

11. Name, address and telephone number of your supervisor/promotor

Name: PROF. IG. MASHABA

Address: THE NURSING SCIENCE DEPARTMENT

UNIVERSITY OF ZULULAND - PRIVATE BAG X1001

KWADLANGEZWA

CODE: 3886

Tel. No. (W) (0351) 93911 (Ext. 2003) Tel. No. (H) (0351) 93658

12. Which methods of research do you intend using when conducting the research?

- (a) A questionnaire Ten questionnaires will be given to teachers, school nurses, children and parents. Will be conducted
- (b) Interviewing Will be conducted
- (c) Action Research
- (d) An educational experiment A pilot study will be done in one school
- (e) Study of departmental documents From White, Coloured and Indian schools
- (f) Other (specify) School nurses, school children, community members.

13. Should you avail yourself of method(s) 12(a) or (b), a copy of the questionnaire/questions should be attached.

Should you plan to use methods 12(c) to (f), a comprehensive yet succinct exposition of the method should be given.

Please ensure that you provide sufficient details regarding the methodology to be used.

14. Which persons constitute the target group for the application of your method of research?

- Rectors ..... Teachers Involved in teaching health c
- Lecturers ..... Pupils who will form the sample, ..
- Students ..... Departmental officials For all Depts. of ..
- Principals ..... schools. Black, Coloured and Indian.
- Other (specify) School nurses and Indian.....
- Parents of school children.....

15. Are you planning to apply the research method(s) mentioned in 12(a-f)

- During a specific period November, 1995, - June, 1996.....
- During a school break Yes X 3 - 4 visits per school.....
- After school hours .....
- At any other time (specify) .....

16. Which schools or institutions of the Department do you intend visiting or involving in your research? Names of the schools will be available after the sample has been selected.

Name of schools/institution	Address and tel. number	Date/month of proposed visit

**NOTA BENE:**

*The Department requires written confirmation of your proposed research project from your supervisor/promotor on an official letterhead of the Institution concerned. This letter must accompany your application. The following particulars are required:*

- Full name and student number of the applicant
- Degree/diploma enrolled for
- Title of paper/dissertation/thesis
- Brief motivation for the proposed research project

**ANNEXURE 6**

## **ANNEXURE 6: LETTERS OF ACCEPTANCE**

- 6.1 Mr Pearce: Acting Superintendent General - Department of Education and Culture KwaZulu-Natal Province
- 6.2 Dr J Stewart: Chief Director of Health - KwaZulu Natal Province.
- 6.3 Mr L.P.Dhlomo: Circuit Inspector

**ANNEXURE 6.1**

DEPARTMENT OF EDUCATION AND CULTURE  
UMNYANGO WEMFUNDO NAMASIKO  
DEPARTEMENT VAN ONDERWYS & KULTUUR

Province of KwaZulu-Natal / Isifundazwe saKwaZulu-Natal / Provinsie KwaZulu-Natal

Street Address/Ikheli ohlala kulo/Straatadres:  
228 Pietermaritz Street, Pietermaritzburg

Postal Address/Ikheli lokuposa/Posadres:  
Private Bag 9044, Pietermaritzburg 3200

Telephone/Ucingo/Telefoon: (0331) 552111

Fax/Isikhahlemezi/Faks: (0331) 943808

ENQUIRIES/IMIBUZO/NAVRAE:  
REFERENCE: 2/12/2/3 (30/95)

Mr R G Pearce

1 July 1996

Mrs Doris Nzimakwe  
University of Zululand  
Private Bag X 10  
ISIPINGO  
4110

Dear Mrs Nzimakwe

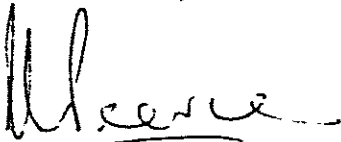
PERMISSION TO UNDERTAKE A RESEARCH STUDY

After careful consideration by the Committee for Research Proposals we have pleasure in granting you permission to undertake your study for " A Health Education Model For Schools in The Durban District Of The Kwazulu-Natal Region."

The schools you have requested to use as part of your study fall within the following areas; Umlazi South, Umlazi North, Ndwedwe, Inanda and Pinetown. Please make the relevant arrangements with the respective Circuit Offices and Principals.

Should you have any problems please request the Circuit Office or Principals contact Mr Pearce at the above number.

Yours sincerely



f.p. ACTING SUPERINTENDENT GENERAL

**ANNEXURE 6.2**

PROVINCE OF  
WAZULU-NATAL

DEPARTMENT OF HEALTH

ISIFUNDAZWE  
SAKWAZULU-NATALI

UMNYANGO WEZEMPHLO

PROVINSIE  
KWAZULU-NATAL

DEPARTEMENT VAN GESONDHEID

NATALIA  
333 LONGMARKET ST  
PIETERMARITZBURG

0331 - 952111

0331 - 426744

Private Bag :X2051  
Isikhwama Seposi :Pietermaritzburg  
Privaatboks :3200

REFERENCE: 66/3  
ENQUIRIES: Dr. L.L. Nkonzo Mtembu  
EXTENSION: 2721

Mrs Doris Nzimakwe  
University of Zululand  
Private Bag X10  
ISIPINGO  
4110

RESEARCH PROJECT "A HEALTH EDUCATION MODEL FOR SCHOOLS IN THE  
DURBAN DISTRICT".

Dear Mrs Nzimakwe

Dr J. Stewart, Chief Director has granted approval for the  
above research project.

*Linton* 5/3/96.  
SECRETARY: DEPARTMENT OF HEALTH  
KWAZULU-NATAL

**ANNEXURE 6.3**

PROVINCE OF  
KWAZULU - NATAL

ISIFUNDAZWE  
SAKAZULU - NATAL

PROVINSIE  
KWAZULU - NATAL

DEPARTMENT OF EDUCATION & CULTURE  
UMNYANGO WEMFUNDO NAMASIKO  
DEPARTEMENT VAN ONDERWYS & KULTUUR

5

Location :  
Public Address :  
Post Office Address :

Isikhwama Seposi :  
Private Bag : X 532  
Private Post Office : NDWEDWE, 4342

Telephone :  
Facsimile : 0322-831015/7

Imibuso :  
Enquiries : Mr L.P. Dhlomo  
Nawoche :

Date : 29 June 1995

Inkomba :  
Reference :  
Verwysing :

Attention: Mrs Doris Nzimakwe (Senior Lecturer)  
University of Zululand  
Umlazi Extramural Division  
P/Bag X 10  
ISIPINGO  
4110

RE: REQUEST FOR PERMISSION TO UNDERTAKE RESEARCH IN SCHOOLS WITHIN THE NDWEDWE CIRCUIT.

In the good interest of education this office hereby approves of your request, provided appointments are properly made with principals and this does not disturb the normal course of education in schools.

Kindly receive the list of schools falling under Ndwedwe Circuit and I hope this will help you in your noble exercise.



THE SENIOR DEPUTY CHIEF EDUCATION

LPD/nkx

KWAZULU NATAL  
THE SENIOR DEPUTY CHIEF EDUCATION  
SPECIALIST UNIT  
PRIVATE BAG 532  
NDWEDWE

